

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

OFFICIAL ORGAN OF THE NORTHWEST FRUIT GROWERS ASSOCIATION

VOLUME TWO

NUMBER TWELVE

ONE DOLLAR A YEAR

BETTER FRUIT

June 1908



THE "PHENOMENAL" BERRY IN ACTUAL SIZE

BY COURTESY OF THE EVERETT WASHINGTON HERALD

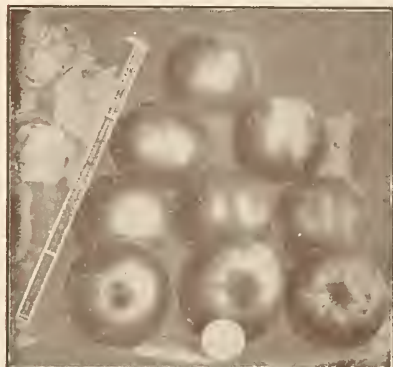
PUBLISHED BY

BETTER FRUIT PUBLISHING COMPANY

HOOD RIVER, OREGON

These Apples grew in the WHITE SALMON VALLEY

Opposite Hood River



Soil, climate & location especially adapted for high grade fruit & berries. *Send for our Book descriptive of this beautiful valley*

A SPLENDID PROPERTY

No. 102—25 acres 4 miles east of White Salmon and 1¼ miles from a boat landing on the Columbia river. This tract has a gentle slope to the east, and every acre is first-class fruit land with a deep, rich red shot soil. 10 acres have been slashed and burned and is ready to clear. The balance is willow, hazel, vine maple and wild cherry brush land. The view from this tract up and down the Columbia is magnificent. The possibilities of this tract for a home and commercial orchard are hard to surpass, and the price is only \$75 per acre. This is a splendid property at a bargain.

White Salmon Land Co.

J. C. MacINNES WHITE SALMON, WASH.

Live facts in a lively way. Live facts for men and women. Facts that affect you — your family

Hood River Valley Apple Lands

Are paying from \$400 to \$700 an acre to their owners. Many started in a small way, today they are independent. *You can begin today*

He who investigates for himself becomes "The man who knows"

IT PAYS TO SEE US

W. J. BAKER & CO.

HOOD RIVER, OREGON

OR

CHAPIN & HERLOW

332 Chamber of Commerce PORTLAND, OREGON

GOVERNMENT LAND IRRIGATED *And Now Open for Entry*

Government land now open for entry under the Carey Act. Irrigated at low cost fixed by State Land Board. To reach lands go to Shaniko, via Biggs on the O. R. & N. Railway thence by stage via Madras, Deschutes Irrigation & Power Company office. If you can't go write for application blanks and booklet to

**Deschutes Irrigation
and Power Company**

Box No. 5

BEND, OREGON

It will pay you to Investigate

KLICKITAT

KLICKITAT FRUIT LANDS

Offer the man of moderate means the opportunity to establish a comfortable home and a profitable business.

KLICKITAT APPLES AND PEACHES

Will pay a handsome profit. Why? Because they rank among the best commercial fruit of three states.

KLICKITAT GRAPES AND BERRIES

Are money makers. Why? Because they ripen early, develop a beautiful color and delightful flavor on the southern slopes of this sun-kissed valley.

For Complete Information Address

Secretary Klickitat Development League
GOLDENDALE, WASHINGTON

WHITE SALMON VALLEY

WASHINGTON

Across the Columbia River From

HOOD RIVER VALLEY

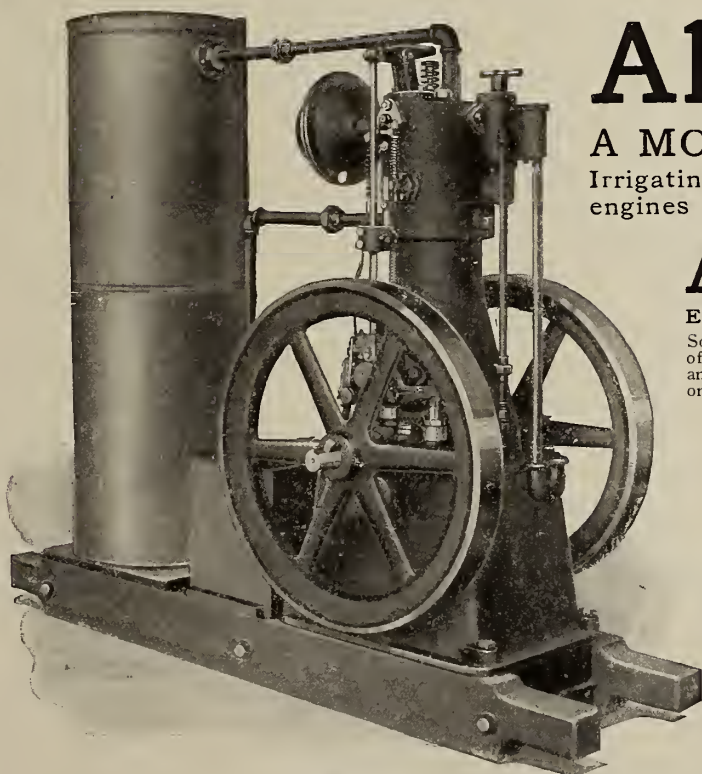
OREGON

The Banner Apple Belts of the World

The name White Salmon Valley is given to that part of Klickitat County drained by the White Salmon River. It extends from the north bank of the Columbia River to the foothills of Mount Adams, a distance of thirty miles. It lies opposite Hood River, in the same climatic belt. The soil is a deep volcanic ash with a clay subsoil. No hardpan. As the snows of Mount Hood influence the Hood River Valley, producing the finest apples in Oregon, so do the snows of Mount Adams influence the White Salmon Valley, producing the finest apples in Washington. These two valleys are destined to become the greatest apple belt in the world. Our berries and all fruits are grown without irrigation; the yield is large and the fruit of a beautiful color, rich in flavor and aroma, and of a superior shipping and keeping quality.

The valley has been held back heretofore through lack of railroad facilities, but the Spokane, Portland & Seattle Railroad, just completed, gives this valley the best shipping facilities in the West. There are thousands of acres of the richest unimproved berry and apple land that may be bought for \$40 to \$100 per acre. Land when improved will clear from \$300 to \$750 per acre in berries and apples. The valley is rapidly developing. NOW IS THE TIME TO SECURE A CHOICE ORCHARD TRACT AT A LOW FIGURE. For full particulars of this wonderful valley address the

WHITE SALMON COMMERCIAL CLUB WHITE SALMON
WASHINGTON



Alamo Engine

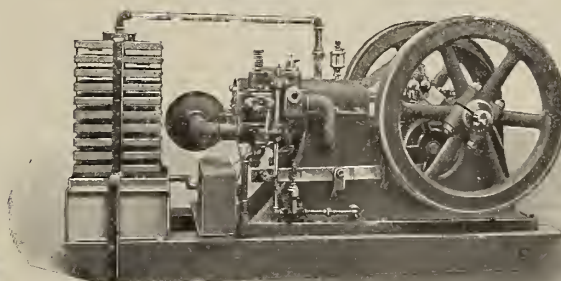
A MODERN DISTILLATE ENGINE

Irrigating, spraying and farm work. Special portable engines for hay press duty. See others but not until you see us

Alamo Gas Engine

Easiest started, smoothest running, most durable, least fuel required

Some engines require a wizard or mechanical expert to get any work out of them. The Alamo is easily operated. Its mechanism is readily mastered, and any bright boy or man can run one. It is the most economical engine on the market, suitable for every kind of farm work. Sizes one and one-half horsepower to fifty horsepower



AGENTS WANTED

WRITE FOR PRICES

BEEMAN-SPAULDING-WOODWARD CO.

MANUFACTURERS' AGENTS

71 Front Street, PORTLAND, OREGON

THE HOUSE THAT SAVES YOU MONEY

Ship your consignments to us. We make a specialty of fresh meats, poultry, eggs, butter, potatoes, apples and onions. We obtain the highest prices and mail returns immediately. Write us for shipping tags and information

Buchanan-Behrens Co.

COMMISSION MERCHANTS

Phone Main 8099
75 Front Street PORTLAND, OREGON

Kane & Co.

WHOLESALE FRUIT
AND PRODUCE

151 Front Street PORTLAND, OREGON

CONSIGNMENTS SOLICITED

Good prices, quick sales and prompt returns for all Fruits, Vegetables, Poultry, Veal, Pork, Etc.

Richey & Gilbert Co.

H. M. GILBERT, President and Manager

GROWERS AND SHIPPERS OF

YAKIMA VALLEY
FRUITS AND PRODUCE

Specialties: Apples, Peaches, Pears
and Cantaloupes

TOPPENISH, WASHINGTON

E. P. Loomis & Co.

Established 1868

Wholesale and
Commission Merchants

Potatoes and Onions

Fancy selected APPLES in boxes are a specialty. Telegraph Codes: Economy, A B C and Scatter Goods. Cold storage warehouse, 95-97-99 Barclay St., N. Y.

95 Barclay Street, New York

Levy & Spiegel

WHOLESALE

FRUITS & PRODUCE

Commission Merchants

SOLICIT YOUR CONSIGNMENTS

Top Prices and Prompt Returns

PORTLAND, OREGON

Capitol Commission Co.

HELENA, MONTANA

Largest distributors of fruits and vegetables in the city

We want berries, cherries, wax beans, new potatoes. We buy outright or handle on consignment. Get in touch with us

GOOD RETURNS PROMPT REMITTANCES

THE DALLES FRUIT COMPANY

INCORPORATED

COMMISSION MERCHANTS

Wholesale Shippers and Packers of Oregon Fruit and Produce

Our Specialties: Royal Anne Cherries, Bartlett Pears, Grapes, Italian Prunes and Peaches

CANNERY IN CONNECTION
THE DALLES, OREGON

FRUIT FACTS

Chelan County won 35 gold medals on fruit exhibits at the Portland Exposition, 1905. This record was not equaled by any other county on the Pacific Coast. We will have 75 to 100 cars of apples: Winesaps, Spitzenberg, Rome Beauties, Lawvers, Jonathans, etc., all packed under the supervision of this association. Correspondence solicited.

WENATCHEE VALLEY
FRUIT GROWERS' ASSOCIATION
M. O. TIBBETTS, Pres. E. T. BALCH, Sec'y.
WENATCHEE, WASHINGTON

FAMOUS HOOD RIVER

Strawberries

THE FINEST BERRY
ON EARTH AND
THE BEST SHIPPER

LOOK GOOD, BUT TASTE BETTER

Fancy Pack Guaranteed

FRUIT GROWERS UNION

HOOD RIVER, OREGON

Ryan & Newton Company

Wholesale Fruits & Produce

Spokane, Wash.

We have modern cold storage facilities essential for the handling of your products.

Reliable market reports

PROMPT CASH RETURNS

YAKIMA COUNTY HORTICULTURAL UNION

NORTH YAKIMA, WASH.

E. E. Samson, Manager

APPLES, PEARS, PRUNES, PLUMS,
PEACHES, CHERRIES, APRICOTS,
GRAPES AND CANTELOUPES

Mixed carloads start about July 20. Straight carloads in season. Our fruit is the very best grade, and pack guaranteed.

We Use Revised Economy Code

DAVENPORT BROS.

WHOLESALE
FRUIT &
PRODUCE

Growers and Shippers of the Famous

Mosier Valley Fruits

Portland, Oregon

The KURTZ Fruit Dryer

Simplest, cheapest and best dryer in use; 150 in Oregon, Washington and California. Tunnel system, best system on earth. We build by contract or furnish plans and patent rights and material, wire cloth, cast iron furnaces and furnace pipes. We also manufacture the Kurtz Prune Dipping and Spreading Machine. It has no equal; saves its cost in less than one season; capacity 200 to 250 trays per hour. Write for descriptive circulars and prices.

CLINTON J. KURTZ
SALEM, OREGON

Pearson-Page Co131-133 FRONT STREET
PORTLAND, OREGON

Superior facilities for handling

**PEACHES
APPLES AND
PEARS**

Solicit Your Consignments

Reliable Market Reports Prompt Cash Returns

Ben Levy**Commission Merchant**Washington Street
Near Front Portland, OregonConsign your strawberries
and other small fruits as well
as apples and produce to us
and receive prompt returnsLouis Barzee, Pres.; E. L. Cannon, Secy., Roseburg,
H. N. Cobb, Manager, Roseburg**Douglas County Fruit
Growers' Association**Packers and Shippers of Choice
Umpqua Valley Fruits

Head Office, Roseburg, Oregon

**McEwen &
Koskey**Wholesale Fruit & Produce
and General Commission
Merchants 129 Front
Street, Portland, Oregon**Consignments**Are solicited, all your shipments
receiving our personal attention**H. WOODS CO.****WHOLESALE FRUITS**

and

COMMISSION

Apples, Peaches and Strawberries

127 South Water Street
CHICAGO, ILLINOIS**Davenport-Thompson
Company****Commission Merchants**We are prepared to get the best prices for
all consignments of Fruits, Vegetables,
Potatoes, Etc., entrusted to us.Phone Main 462 144 FRONT STREET
Phone Home A1462**PORTLAND, OREGON****THE
DAVIDSON
FRUIT CO.**

of

Hood River, Oregon

Pioneer fruit packers and shippers
of this famous section. "Quality"
is our watchword, and "Fruit
Worth the Price" is our motto.
Wire or write us for apples, straw-
berries or pears in season in car
lots or smaller shipments. Other
fruits in season in less quantities.

CORRESPONDENCE SOLICITED

**RYAN &
NEWTON CO.****Wholesale Fruit and Produce****BUTTE, MONTANA**We have modern cold storage facilities
essential for handling your products.
A strong house that gives reliable
market reports and prompt cash returns**Mark Levy & Co.****COMMISSION
MERCHANTS****WHOLESALE FRUITS**121-123 FRONT AND
200 WASHINGTON ST.**PORTLAND, OREGON****THE OLD RELIABLE
BELL & Co.**

Incorporated

**WHOLESALE
FRUITS AND
PRODUCE**109-113 FRONT STREET
PORTLAND, OREGON**IT'S VERY
PLAIN** 2
2
41880
1907If you appreciate this kind
of a house, when you have
fruit to ship, write to**A SIMPLE
PROPOSITION**Dealing with an old established
house gives results**Page & Son****Wholesale Fruits****Portland, Oregon****Gordon & Company****General Commission Merchants**

805-7-9 Western Avenue SEATTLE, U. S. A.

SEND US YOUR SHIPMENTS—BECAUSEWe have the largest warehouse in Seattle
We have the largest Alaska trade
We have an unexcelled selling force, and
We have been at it seventeen years and know how**CONSIGNMENTS SOLICITED**



HOOD RIVER

AGAINST THE WORLD FOR APPLES AND STRAWBERRIES

There are good profits in growing apples and strawberries in Hood River. There is no question about finding a market for everything you produce.

There is an unity of action among our growers.

There are good roads, good water, good schools and good neighbors.

You don't have to worry your life out to make a good living for yourself and family.

You will live longer and enjoy life to the utmost in an up to date farming district such as Hood River.

You will save time and money by telling us what kind of a place you want and let us find it for you.

You can find hundreds here who have profited by following our advice. You can find others who have not profited because they did not follow our advice.

We make a specialty of first class properties.

We tell you the truth.

We operate strictly on a commission basis.

We are not from Missouri but will be glad to show you.

J. H. HEILBRONNER & Co.

The Reliable Dealers

HOOD RIVER AND PORTLAND, OREGON

PORTLAND ADDRESS, 408 CORBETT BUILDING



HOOD RIVER, OREGON



HOOD RIVER'S FAMOUS PACK

GREATEST APPLE GROWING VALLEY IN THE WORLD

Where fruit pays from \$500 to \$1500 per acre and is marketed for you at the highest prices paid anywhere in the world, while still on the tree. Forty thousand acres of finest apple land still undeveloped. One hundred thousand horsepower going to waste in its streams. Population, 6000; value fruit products, 1907, \$400,000; value lumber output, 1907, \$750,000; taxable property, \$2,700,000; bank deposits, 1901, \$36,000, 1907, \$690,494.31. Railroad and water transportation. Two hours from Portland, twelve hours from Seattle and Spokane. Rural mail delivery. Phone service covering city and valley. Let us tell you about it. Address

PUBLICITY COMMITTEE, HOOD RIVER COMMERCIAL CLUB

Do it Now—Today

HOOD RIVER, OREGON

BETTER FRUIT

A MONTHLY ILLUSTRATED MAGAZINE PUBLISHED IN THE INTEREST
OF UP-TO-DATE AND PROGRESSIVE FRUIT GROWING AND MARKETING

ORIGIN OF THE STRAWBERRY AND ITS CULTIVATION

FROM THE STRAWBERRY MAGAZINE. COPYRIGHTED BY THE R. M. KELLOGG CO., THREE RIVERS, MICHIGAN

MOST popular of all the fruits, the strawberry has a history of large interest, although its earlier records are veiled in uncertainty. Botanically a member of the great rose family, it is of the order *Fragaria*, a Latin word from which we derive the English "fragrant," or a plant with sweet odors. The *Fragaria* family is divided into five species, namely, *Fragaria vesca*, or "Alpine," *F. Elatior*, or "Hautbois;" *F. Indica*, or "Indian;" *F. Chiloensis*, or "Chilian;" *F. Virginiana*, or "Virginian."

The Hautbois and Alpine varieties are little known in this country except among amateurs. They are never grown for commercial purposes here. In Europe, however, they are very highly prized as dessert fruits. They are found to some extent in the more northern latitudes of North America and in some of the states west of the Rocky Mountains. The seeds are on the surface of the fruit and never depressed or sunken within a cavity.

The Virginian strawberry is the most common species found in our country, and prevails quite extensively in all sections east of the Rocky Mountains. It is the most fragrant strawberry known and is celebrated for its highly aromatic perfume, while the fruit is rich, sweet and firm. The seeds in this species are deeply imbedded in a cavity or pit.

The South American species is widely distributed throughout the west coast of America, from as far north as Alaska to Chile and other countries of South America. The seeds are imbedded, but not so deeply as those of the Virginian, and the fruit is larger and sweeter than that of any other species. Many varieties of it have been grown in this country, but in recent years have become so

mixed and improved by cultivation and by crossing with the *F. Virginiana* that it would now be a difficult matter to find either species in its typical form.

F. Indica is a native of northern India. It has a yellow bloom and does very well in window baskets, but the fruit is dry and tasteless.

Historians do not agree upon many points concerning the strawberry, but from an interesting paper recently read by Prof. George A. Cole, of the Arkansas Experiment Station, we are indebted

production of the older but excellent varieties, such as Hovey's Seedling, Wilson's Seedling, Charles Downing and Sharpless. In our own time Michel's Early, the Crescent and Lady Thompson exemplify its usefulness as a stock from which to evolve commercial varieties.

Prof. Cole says that historically the *Fragaria vesca* or "Alpine" strawberry is the first on record. It is the strawberry of the ancients. I am not sure but that Adam's fall was caused by this strawberry rather than an apple. It is the "Alpine" that Virgil knew when he wrote the following lines

"Ye boys that gather flowers and strawberries,
Lo hid within the grass an adder lies."

This species grows wild throughout northern and central Europe. In America it is found in all the mountain regions from the northern Atlantic to the Pacific.

The "wood strawberry" of England is a variety of the "Alpine," the only difference being in the shape of the fruit. The "wood" is round, while the "Alpine" is conical.

One of the earliest pastimes of the English people was to go "a-strawberrying." In the "Faerie Queen" we find these lines:

"One day as they all three altogether went
To the green wood to gather strawberries,
There chanced to them a dangerous accident."

Shakespeare alludes to the strawberry in the play of "Henry V." An earlier bishop of Ely says: "The strawberry grows underneath the nettle, and wholesome berries thrive and ripen best neighbored by fruit of baser quality."

The Alpine and the wood strawberries tend to reproduce themselves with such unvarying exactness that they remain

CONTENTS
ORIGIN OF THE STRAWBERRY AND ITS CULTIVATION
MAKING A COMMERCIAL SUCCESS OF SMALL FRUITS
THE LOGANBERRY AND METHOD OF PROPAGATION
GROW FRUIT BEST ADAPTED TO YOUR DISTRICT
THE FRUIT RESOURCES OF KICKITAT COUNTY
THE STRAWBERRY A LEGITIMATE MONEY MAKER
PRUNING AND SETTING THE STRAWBERRY PLANT
ANOTHER VIEW OF THE GROWING OF SMALL FRUITS

for the facts which appear below. Prof. Cole calls attention to the fact that the improved varieties of today are the descendants of *Virginiana* and *Chiloensis* forbears, the latter being the favorite stock of the European gardeners. The varieties evolved from this species are not so hardy as from the *Virginiana*. The mild climate of France and England and the intensive culture practiced by the gardeners of those countries, causes the *Chiloensis* and its varieties to respond bountifully. It is asserted by a well-known writer on horticulture that ninety-nine-hundredths of all the strawberries of commerce are from the two species, the *Virginiana* and the *Chiloensis*.

It is said that the law of race extends to strawberry plants. As in the most refined and cultivated peoples there is a strain of the older native stock which ever remains a source of weakness or strength, so the new varieties indicate in the ordinary rough and tumble of field culture, as practiced in this locality, whether they have derived their life from the hardy *F. Virginiana* or the tender and fastidious *F. Chiloensis*. A variety from the former adapts itself to conditions extremely varied, while a variety from the latter needs all the care of an expert to make it remunerative.

The capacity of the *Virginiana* strawberry for improvement is shown by the



BRANDYWINE



CHALLENGE

about what they were centuries ago. Cultivation does not change them.

In connection with the white and red wood strawberries and Alpine strawberries, the Elatior or "Hautbois" is mentioned in the year 1623. This latter species is native of Germany and does not differ materially from the "Alpine" in its tenacity to hold on to its "old self." It, like the other mentioned, is incapable of being improved by the best cultivation, nor do the seedlings from it vary from the parent. Cross-fertilization would doubtless effect a change and thereby give us a hardy if not a prolific variety.

The horticulturist is at the end of his row to improve a species when it fails to vary from the original. It is his province to assist nature in causing the "fittest to survive."



SETTING THE PLANT

From reliable records we find that the English and French gardeners cultivated the strawberry as far back as the fifteenth century. As there were plenty of wild strawberries of good size, and of the very finest flavor, along the Atlantic slope, it was not necessary for the early settlers to cultivate them. But as towns and cities grew up these furnished a market for more than nature unassisted could supply. Hence the farsighted gardener transplanted the wild Virginiana into his grounds. As close cultivation made larger berries, and as larger berries commanded higher prices, it was a short step of reason to demand the best and biggest berry. The business of raising strawberries for the market first started with the gardeners around New York, Washington, Norfolk, Richmond and other coast cities and towns of the eastern states.

The cities of New York and Washington demanded berries before they ripened in their own gardens, hence the business of raising the berry farther south became more remunerative about Norfolk and Portsmouth than farther north. It was at these places that the garden-patch grew into one, two and three acre patches, and finally into hundred-acre fields of strawberries. Here the berry

raiser worked out the modern methods used in field culture and shipping.

The food office of the strawberry is to supply its beneficial acid to the system, diluted and flavored as it is by the water and sugar and the delicate fruit aroma, the combination of which, in the case of the strawberry, has attained so delightful a degree of perfection, and eaten from the plant, or served with sugar and cream, is an Arcadian dainty, leaving nothing to be

and liberally fertilized. Besides improving the yield of fruit, such fertilization also materially improves the quality of the berry, both as to flavor and firmness, the latter being a matter of considerable commercial importance. A satisfactory strawberry fertilizer should contain the following proportion of ingredients:

Nitrogen	3 per cent
Potash	10 per cent
Phosphoric acid	7 per cent

If the berries are to be produced upon soils quite sandy, it may even be better



A DISH OF STRAWBERRIES FIT FOR A KING

wished for, making it probably the most wholesome of all fruits.

Potash in Strawberry Production

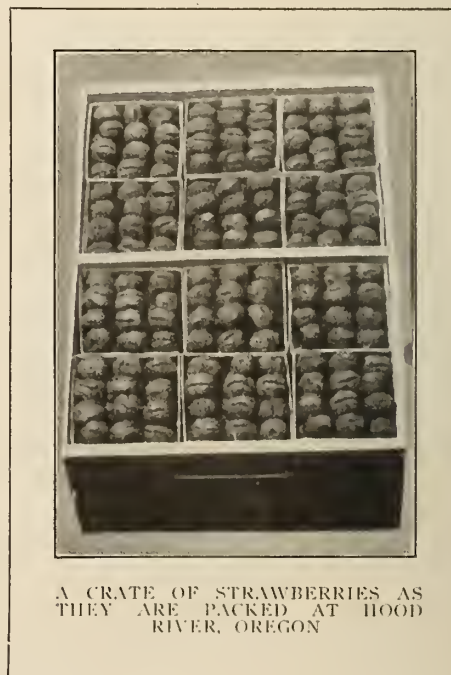
One of the errors found in every section of the country is that potash is a plant food which, if fed alone to strawberries, will be all-sufficient. Writing on that subject George Wright says: It is a very important thing to remember that however efficient and valuable potash may be as a plant food, it cannot fulfill the conditions of a complete fertilizer—it is not a complete plant food any more than oats would be a complete food for the horse. It is but an element of food, and its real value will be largely measured by the content of phosphoric acid and the nitrogen in the soil, either naturally or artificially applied, in order to meet all the needs of the plant.

One of the crops which usually responds liberally to the use of potash, in connection with the other elements, is the strawberry. This is a crop which can be successfully grown on almost any soil if proper attention is given to the matter of proper fertilization. Correct methods in this direction are even more important than that of soil selection. It can be truly said that no crop will continue to produce a profitable yield of berries unless they be judiciously

to increase the potash to 12 per cent. Such a mixture should be applied at the rate of about 500 pounds per acre, and thoroughly worked into the soil. If the location is one in which heavy



MARKING THE FURROWS FOR STRAWBERRY PLANTS



A CRATE OF STRAWBERRIES AS THEY ARE PACKED AT HOOD RIVER, OREGON

winter and spring rains may be expected, it is well to apply only a portion—say 150 pounds—of the nitrate of soda to the berries at first, the balance to be applied somewhat later. The fertilizer should not be sown directly on the plants while in an active growing state, as the leaves will be injured by such treatment, but the material may be distributed around the plants in such a way as not to come into direct contact with the plants themselves.

The amount of ingredients named may seem large, but the strawberry, small as

barnyard manure to return to the soil the ingredients of a single crop of strawberries, and even then there would be a considerable excess of nitrogen, which would have the tendency to produce a very heavy growth of foliage at the expense of fruit. Such an unbalanced material as stable manure alone cannot be recommended for this crop.

The stable manure in moderate amounts, balanced up by the use of potash, would be fairly good practice. If the nitrogen be obtained from the stable manure, then there will be sufficient in the latter too, but the potash will be deficient, and this can be supplied either from the sulphate or muriate of potash.

How to Prune and Set Strawberry Plants

The first thing to do upon receipt of your plants is to sort them over, putting the bunches of each variety in a place by themselves, seeing to it that you have them so identified and arranged that there may be no possibility of mixing the varieties. Every bunch of plants should contain a label, giving the name of the variety, also telling whether it is pistillate or bisexual.

Now if your ground is not ready for the plants, heel them in. First dig a V-shaped trench, open the bunches and spread them out in the trench, being sure to put each variety to

itself and put up a stake bearing the name of that particular variety. Then there will be no difficulty in getting the variety you wish to plant first. As fast as the plants are placed in the trench, the dirt should be drawn up over the roots.

If, however, the ground is ready to take the plants, proceed at once to prepare the plants for setting. No plant is ready for setting until its roots are trimmed back at least one-third. This is done by taking a full bunch and a pair of sharp shears. The thumb and forefinger are placed at the crown, the hand lies flat on the surface of the ground, and holds the crown at the surface level, preventing the plant from going too deeply into the soil.

There are several advantages in pruning the plants. In the first place, if the roots are not trimmed, the man who is setting the plants out is apt to double the roots up, and when this occurs it requires fully a week or ten days longer for the feeding roots to start and the plants go to feeding on Mother Earth. During this time it is using up the vitality that is stored up in the crown of the plant. When the roots are cut back, the wound will callous and numerous little feeders will start. These will immediately go to feeding on the mineral elements of the soil. This results in

developing a much larger root system, which in turn builds up a larger crown, the results being a heavier foliage and a more abundant yield of strawberries. When the plant is entirely dormant the pruning may be done more closely than where the plants are green. We have tested pruned and unpruned plants side by side—the same conditions—and the results invariably have been in favor of the pruned plants, both in vigorous vegetative growth and in the production of fruit buds. Too much thought may not be given to the method of arranging the plants so as to secure proper pollination. Be careful to set one variety at a time. If, for instance, you are setting Warfields, mated on one side with Texas and on the other with Dunlap, first set your Texas, then skip seven rows, three of which will be left for Warfield and one for Senator Dunlap, to be followed in turn by three more Warfields, when another row of Texas will be set out; and repeat until the field is set. Then comes the cultivator, which should follow immediately after the plants are set. If this is not done a large quantity of valuable moisture will be wasted through the tracks made by the planters. We have found the best implement for this purpose to be the Planet Jr. twelve-tooth cultivator. If you would secure the highest possible results, cultivation should be repeated weekly throughout the season, unless the ground is too wet to permit it.

And don't forget the hoe. All the crust should be broken close up to the roots of the plants. This prevents weed seed from germinating, conserves moisture, and admits air to the bacterial germs. The best time to kill a weed is before it gets started, and the hoe is the most effective tool with which to accomplish it.

After the plants receive one or two cultivations and hoeings, they will start blooming. The blooms should be picked off at once.

An important consideration in this work is that of tools. The best device that we ever have seen is the metal dibble. The blade is of steel, which is attached to a malleable shank. The blade goes down to almost a needle



PLANT PROPERLY SET



A QUART OF HAVERLANDS

the plant is, is a strong feeder, as will be seen from the following table showing the ingredients removed from an acre by an average crop of strawberries:

	In 1 acre	In 7 tons strawberries manure
Nitrogen	74 lbs.	77 lbs.
Phosphoric acid	28 lbs.	57 lbs.
Potash	125 lbs.	74 lbs.

From the above it will be seen that it would require about twelve tons of



HOW TO PROPERLY SET STRAWBERRIES



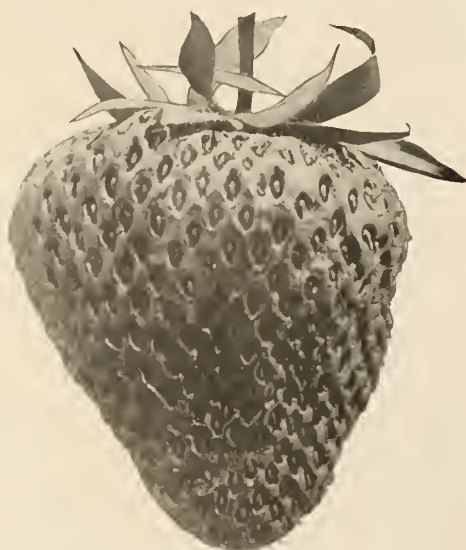
MARKING ROWS FOR STRAWBERRY PLANTS

point, making it very easy to press into the soil. The dibble should be forced to a depth of about six inches, then pressed from you so as to make an opening large enough to take in the roots of the plant. The roots should be placed in this opening before the dibble is withdrawn, then remove the dibble and thrust it into the soil about two inches from this opening and draw it firmly toward you, which will press the earth firmly against the roots of the plant. Then firm the soil with the fingers about the crown of the plant. Your



AUGUST LUTHER

plants should be carried in a basket, shaded with some top covering. As the one setting plants moves along the row the basket should be carried along with one hand, while the other hand is engaged with the dibble. With this little tool one man will set from two to three thousand plants a day, when he once gets into the swing, and there is no



DOWNING'S BRIDE

reason why every plant so set should not live.

Growing Plants and Fruit Together

The surest way to make failure of the work of strawberry culture is to practice the method, all too common, of growing

plants and fruit in the same bed. It doubtless is the fact that more growers fail by following this method than from any other single cause.

It simply is impossible for a plant to do two things successfully at the same time. To grow strong plants requires quite a different set of conditions from those required to grow berries, just as it requires one kind of food to produce milk in the cow and another kind of food to produce fat.

To grow a strong, well-developed and perfectly balanced plant requires science, both as to the feeding and cultivation of the plants. How to select mother plants and how to tell when they are prepared to make runners; what runners to set and what not to set—these require quite as much science as is needed by the chemist to know what elements to put together in order to secure certain desired effects.

Too many growers appear to think that to grow plants successfully one needs merely to set out the plants and let them make runners, or multiply themselves. At setting time they dig the alley plants, and leave the center of the row to fruit, and great is their disappointment because the big red berries don't pile up all along the rows. They fail to consider that the entire strength of their plants was exhausted in multiplying themselves.

Then the plants that are left are matted and neither roots or foliage have room in which to develop, the roots of one plant robbing the others like so many pigs rushing for the same ear of corn. Turn a hundred pigs on ten square rods of clover and see how many big fat porkers you will get as a result. This rule of feeding applies alike to plants and animals. Sometimes a grower says he piled on enough manure to one acre to feed two acres of plants. Doubtless he did put on a needless quantity of manure, forgetting that only a certain quantity of food can be digested and assimilated by the plant, and that this plant food must first be dissolved by moisture and taken up by the soil grains before it can be used by the plants.

Another point to be considered is the fact that plants require a great deal of water, and if they can't get it they will take up the leachings of this surplussage of plant food (manure), which makes a succulent, undeveloped, unbalanced, sickly plant. To use the analogy of the hog again, feed an entire load of corn to the hogs, unaccompanied by plenty of water, and the fat will fail to develop on their ribs.

There is a surprising likeness between animal and plant life, and if we will bear this fact in mind and use the same reason in the treatment of plants that we do in the care of animals, it will aid us not a little in attaining the results we seek. And never try to do anything not in harmony with nature's laws.

HOW TO COMBAT ENEMIES OF THE STRAWBERRY

That prevention is better than cure nowhere is more emphatically impressed than in dealing with the insect enemies of the strawberry. And it is a great satisfaction to know that, instead of its being a hopeless task to keep one's fields rid of these pests, it is a very simple matter indeed, if you are careful to see that they are

never permitted to get a foothold. Right now is the time to get to work with your measures for preventing such an undesirable condition. In order that our readers may know these enemies when they see them, we give herewith a description of the particular enemies of the strawberry, and in order that they may know exactly how to go about it to keep them down, we give directions for their prevention or cure.

The Aphis or Louse

If black ants are seen working around the plants it is a sure indication that lice are at work down at the lower end of



EXCELSIOR

the roots. The lice are carried from the roots of one plant to another by these ants. These aphides multiply very rapidly and will become quite troublesome if not looked after in time. The remedy for these lice is this: Before setting the plants dip them into a strong tobacco tea made by boiling one pound of tobacco stems in five gallons of water for twenty minutes. The roots should be dipped up to the crown. This will kill the lice if any be present, and requires but a very little time.



CLYDE

The Strawberry Beetle

The strawberry beetle is a small, dark-colored bug, which, like most all other troublesome insects, generally is found in old, neglected strawberry fields. The

Continued from page 30.

MAKING A COMMERCIAL SUCCESS OF SMALL FRUITS

BY J. F. LITTOOY, OF MOUNTAINHOME, IDAHO, A PROMINENT GROWER

NOT KNOWING what phase of the berry industry would be appropriate for your "Berry Special," the thought occurs that a rough sketch by way of a general review would afford material to be segregated, with the hope that some may be of value.

I know of no phase of the commercial fruit industry that warrants the detailed care for the successful marketing of the product as does the strawberry, rasp-

demonstrated they were correct and the profits from such shipments after paying a high express rate, soon heralded throughout the valley what was worth more, to the farmers, than the best placer strike.

But these pioneers little realized then the possibilities being achieved today, and that a transformation was soon to take place in changing the farms of the Puyallup Valley from the gamble in hops at \$1 per pound and the acreage in large holdings, to the berry industry, confined to small intensively cultivated tracts, thus making a valley of homes and prosperity.

The start of this industry is appreciated and a matter of history and many names could be used in connection with the initial move. But for the success of the industry as it is today due credit must be given to those who initiated and worked for the plan of organization, and to those today who are devoting their energy to perfecting a better organization, because of factors which are bound to cause its expansion beyond the scope of present conception.

The majority of the growers of small fruit in the Puyallup Valley little realize what it meant to the growers twelve years ago, when miniature organizations were struggling for supremacy and competing with each other in the same markets, and the independent shippers at the same time were shying around the railroad platform to note the destination and name of consignees, in order to mark their shipments the same and go home jubilant because they could run their own business themselves while others were paying royalty to be fleeced. But actions and expressions talked louder than words, and one could read in their faces the anxiety in the gamble which had to be suppressed, because it was not the open game of the stock board. Pickers must be paid, crates also, and shipments guaranteed. Can we imagine the suppression to be controlled by the independent shipper when the letter supposed to contain the remuneration for his shipment calls for an amount due the consignee to cover express charges and he is notified that because of glutted markets his fruit was dumped?

But the gamble must go on, money was the only relief and the next shipment was started off with a prayer of anxiety and the hope that it would bring that relief. This time it did, and the next time it didn't. The consignees in the same market were competing with each other with the capital of the berry grower (his berries) because all would receive shipments and each would endeavor to get a profit even if necessary to cut prices because the stuff was perishable. The one who cut the price may have acted wisely and the one who didn't may also have done so. Who knows? Who cares; nothing could be controlled and who was to blame? In such a chaos someone must lose and it was a game of give and take to keep the game alive. But out of chaos at last came order, and the growers now are reaping the harvest at the expense and sacrifice of those who fell at the front.

Think what it means, now, to be able to bring fruit of such a perishable nature to the depot for shipment, receive a receipt for the same and go on your way rejoicing, and no such thought to mar

the case as a notice for remittance because the fruit was dumped, but on the contrary the receipt is as good as a check on delivery of goods. Through organization the gamble has been eliminated and a step made for the higher order of civilization to the grower, because a common interest is mutually protected. Spare time now can be devoted to the moral and ethical development, which counts for contentment in the home as well as community, as



TEXAS

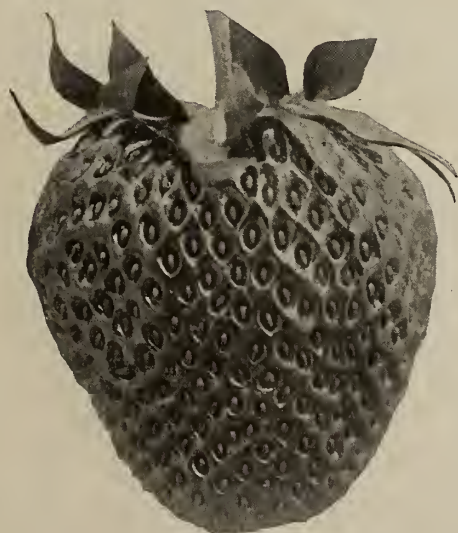
berry, or blackberry. Because of its extreme perishable nature it borders on gamble to think of stacking carloads of such fruit in a warehouse on a hot day, much less to be loaded in a car for a two-day shipment to eastern markets and over a route where the climate is much hotter than where the shipment originated. But possibilities encourage achievement, and to the



WM. BELL

against the contrast of the former hand-to-mouth existence of the initial period.

Yet with all this achievement the weakness of human nature regulates much that must be overcome, and the organization must yet surmount the problem of eliminating or absorbing the



GAUDY

pioneers of the Puyallup Valley the credit belongs for recognizing that the size and lusciousness of the raspberry and blackberry as grown on Puget Sound should command attention as an industry. Experimental shipments soon



GLEN MARY

competitor in their midst which, if successful will be to the material benefit of both. While both in a measure co-operate so that the profits will be on the right side of the ledger, yet that innate something in man must have an

opposite side to agitate or he thinks he is one-legged and his progress unbalanced. Some may argue in its favor from the standpoint of policy, and it may be appreciable in politics, as is instanced by the democrats thinking they are manufacturing material for the republicans to use to regulate national internal issues, but it's only another way of beating the devil around the bush to cover up selfishness, jealousy or some chronic disease which perhaps



PARKER EARLY

the service methods of Burbank cross-breeding only will eradicate. Then there are yet a few small individual shippers who cannot cast their trust aside from their own control and yet must recognize the fact that their success is entirely due to the association when they no more must shy about the railroad platform to steal the name of a consignee to tear down the profit of both consignor and themselves.

Such a fellow I cannot analyze, except that the Almighty placed him here so that we can appreciate the others.

The influence of the organization is felt beyond its borders and has awakened other localities to the possibilities of a share in the profits of the industry. As a result Snohomish County is now



AROMA

devoting considerable attention to the production of the raspberry and blackberry and the largest single acreage is to be found there, and these honors may be equally shared between Monroe and Snohomish. Then Skagit and Thurston Counties are also planting

extensively and organizing for the protection as a whole of the industry.

Not alone in Washington but the infection has spread to Oregon and British Columbia and caused our methods of practice to be exercised in California—after a car of berries was shipped there from Puyallup to remind the old fruit growing state that coal could be shipped to Newcastle.

This industry should thrive anywhere west of the Cascades along lines of transcontinental railways.

A rich harvest is awaiting the industry in British Columbia because of the protective duty of \$1 per crate. The industry cannot grow fast enough to supply the trade along the route because the luscious fruit as raised about the Sound will always find eager appetites awaiting its consumption throughout the markets of the east, which markets are made accessible by the introduction of the refrigerator crate. Then again the industry could be broadened to extend to other countries by bulk shipment in barrels, and transformed to the finished product at the destination.

The national pure food law was another great stimulus to the industry. The price of pure food increased so that the canneries can now afford to pay enough for the fruit to make it profitable to the grower.

THE DRYING OF THE BLACKCAP RASPBERRY

BY JOSEPH HALL, NEWBERG, OREGON

WE must first have the berries before we can dry them, hence a few words on that line. Perhaps there is no section of country in the United States better adapted for the production of black raspberries than the Willamette Valley, in the western portion of Oregon, and if other sections of the valley are not on the lookout Yamhill County will be the banner county.

Oregon produces no other dried fruit equal in value to the dried black raspberry. For the past two years they have sold for \$450 per ton delivered at the railroad station, and the product this year (1907) about Newberg and Springbrook was over ten tons, or about \$5000.

Ten years ago but little was done in this line. When I wished for plants, I received but little encouragement from nurseries in Salem and parties in Portland. Reason given: Bushes would dry up before berries were matured. That is the case in some sections, but not in all; not in this part of the valley.

One acre of ground produces from \$100 to \$150 worth of berries yearly. If properly gathered, the drying is easily accomplished. Some advocate whipping the ripe fruit off in the place of picking it, drying in a dryer and then running the dried product through a tanning mill. The method followed here is to gather the fruit by hand, dry on trays in the sun, if the weather is favorable; and in eight years' experience only one year gave me any trouble in that line. We have many prune dryers here, and the trays are taken out and used for this purpose. This year a few at first were dried in a dryer; after that all were dried in the sun. It is cheaper and less trouble to dry in trays in the sun, and the fruit is just as good, if not better. The fruit will dry in trays in the sun in three days generally. Trays are easily made of lath and muslin cloth—three feet by four feet—four-foot lath for sides and three-foot

lath for ends and slats every nine inches apart. Tack the cloth on tightly, then nail strips of lath around the outside, extending one-half inch above the cloth.

These trays will hold from sixteen to eighteen pounds of berries each, and are easily handled by one person. They can be placed on racks or on poles placed on the ground, anywhere where convenient. They are cheap and will last many years. While the berries are on the trays all stems and leaves can be removed and the



CLARK SEEDLING

fruit come off perfectly clean. If the heat should attain to 98 or 100 degrees in the shade, shade the fruit or it will be cooked.

Do not permit the fruit to get too dry, and yet do not remove it while too moist. Place the dried product in a bin, if there is a large quantity, and shovel it over once or twice a week till done drying fruit, then sack in sugar sacks, both kinds being used. Here the berries are sold as soon as dried.

The rows are planted eight feet apart and the plants four feet in the row.

They are easily raised, dried, and find a ready market with good prices.



NICK OHMER

THE Salem cannery, after paying \$3000 for improvement work, was able to declare a dividend of seven per cent. The plant has a capital to the extent of \$10,000, and during the season 1907 paid \$13 a ton for cull apples and 3¾ cents a pound for cherries.

THE LOGANBERRY AND METHOD OF PROPAGATION

BY A. M. ASPINWALL, OF BROOKS, OREGON

THE loganberry is one of the more recent additions to the berry family. It was originated by Judge J. H. Logan near Santa Cruz, California, and is a hybrid, being the result of cross-pollenizing the Aughinbaugh blackberry, a wild variety in California, with the red Antwerp raspberry.

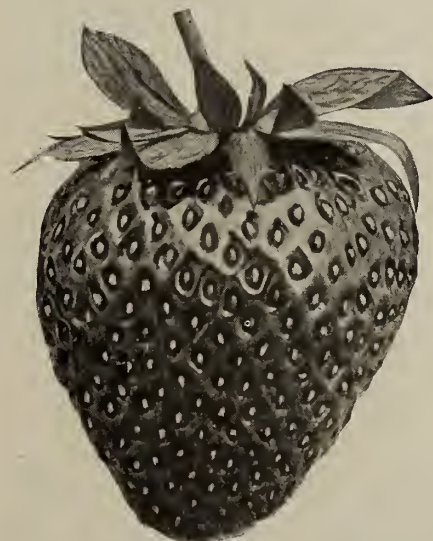
The loganberry may, therefore, properly be called the blackberry-raspberry.



LADY THOMPSON

The vine is long and trailing and the leaves coarse and dark green, resembling the raspberry. The fruit, in form, size and structure, is like the largest sized blackberry. In color it is dark red when fully ripe. Its flavor partakes of both the blackberry and raspberry, being mild, vinous and delightful to the taste.

How widely the loganberry can be successfully grown is yet to be determined. The plant is hardy and a vigorous grower, but is susceptible to extreme weather. Zero temperature will shorten the ends somewhat, but by putting the vines on the ground and protecting them with straw they will winter well in



WARFIELD

almost every section of the United States. They are a good cropper in Indiana on plants introduced from California, and the call comes for information how to propagate them.

Certain it is that here in Western Oregon and in the Puget Sound country the

loganberry finds ideal conditions in which to reward the painstaking grower with its burden of luscious fruit. The vines winter well on the trellis without protection. The blossoming period is late, escaping the danger of frosts. The fertile soil and humid climate produce a vigorous plant, capable of maturing its clusters of large purple berries.

There are several ways of propagating the loganberry. My practice is to bury the ends of the vines in the fall several inches under ground. During the fall and winter these tip ends strike root, when, during the warm days of spring, they can be cut from the parent vine and transplanted. I very much prefer good strong tips to transplants a year or more old. A much larger percentage will live and the canes produced from tips will be stronger.

The cultivation of the loganberry naturally divides itself into two branches. First, growing them for home use; and, second, for commercial purposes.

Every family may have a plentiful supply of this luscious fruit if but a half dozen plants are set out and properly cared for. Even in growing the berry for market the space occupied by the vines need not be large to keep an average family busy during the harvesting season. As a yielder the loganberry has no equal. On good soil and with proper cultivation an acre of the vines will give an average yield of five hundred crates weighing twenty-four pounds each, or a total of six tons of berries. Under more favorable conditions, eight tons per acre is not an uncommon crop.

Having decided the object and extent of your planting, the next step is to select a suitable location. A level tract is preferable to a hillside because of the greater ease of cultivation and trellising and the less likelihood of the winter rains washing the soil. Select a deep, rich, dark loam, if you have it. The plants and berries will then reach their maximum growth. A clay subsoil is to be preferred to one of sandy or gravelly texture, because of the added moisture within reach of the roots while the berries are maturing.

Any good soil with a fair amount of fertility, however, will grow an average crop of berries if properly handled. Good returns are secured from sandy or gravelly loams where there is enough fertility to grow grain crops profitably.

Drainage is important. Keep the water from standing on the surface. If the water does not drain off naturally, tile draining should be provided.

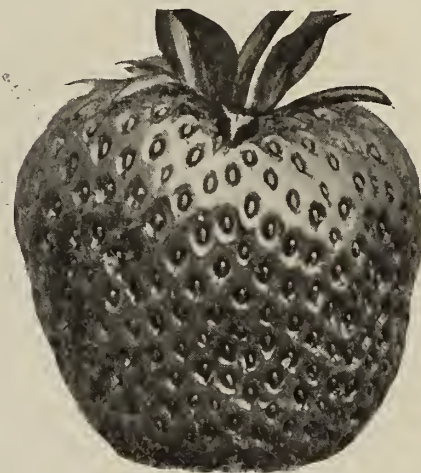
In planting, I prefer the month of April if the condition of soil is right. The oncoming warm days will call the young plants into new life, causing them to become well rooted before the dry season sets in.

Do not make the mistake of crowding your plants. Give them plenty of room to secure the necessary air, sunlight, and soil in which to spread their roots. I prefer to set the plants in rows eight feet apart each way, making 680 plants per acre. Most of the cultivation can then be done with plow, harrow and team.

The first year the vines will not make much growth and do not interfere materially with their cultivation until about the first of August, after which they frequently shoot out eighteen or twenty

feet or even more before winter. The second year about one-third of a crop may be expected. The vines should be trellised during the previous fall.

Build your trellis substantially. Use good strong cedar posts and set them not over thirty-two feet apart in the berry rows. Securely fasten to these three or four number twelve galvanized wires, spacing them equal distances



MARSHALL

apart. Now train each vine separately on the wires. Distribute evenly and see that each wire carries its full share of the weight. If practicable, have the trellised rows running north and south, thus the vines are much better protected from the winds and ripen more evenly, as they get both morning and afternoon sunshine.

As a general rule the loganberry needs but little pruning. Do not thin out until more than a dozen vines appear in a hill, and then remove only the weaker canes. The yield will be larger and quality of fruit improved if the pruning shears are



SENATOR DUNLAP

not used too freely. A fair amount of foliage on the vines for shade is an advantage.

Cultivation should be thorough and frequent. I prefer to plow both in the fall and spring, turning the furrow against the row in the fall, where it is

left undisturbed till spring, when I turn it into the center between the rows, then use either the disc or springtooth harrow until in July, or at least until harvesting begins. Start the cultivation in the spring as early as the ground can be worked and go over the surface at least once each week to retain as much moisture as possible. This will add greatly to the health and vigor of the canes and is of the first importance in the development of a full crop of large, firm berries. As the season advances, see that the harrow is set more shallow with each successive cultivation and followed each time by the clod-masher, which will make a dust mulch to hold the moisture. Have a careful trainer go ahead of cultivator to turn in all arms that dangle out from the trellis, to prevent the team from breaking them.

The time of harvesting varies somewhat with location and nature of the soil. In the Willamette Valley the first berries are usually ready for gathering by the middle of June. The ripening will increase steadily each day until in July, when the full harvest is on. The harvest continues six weeks, during which time the vines should be carefully gone over every alternate day and the ripened berries gathered. Do not allow the fruit to get over-ripe. It will not handle so well in shipping.

When the season for gathering the berries shall have arrived everything for handling the crop should be in readiness, plenty of crates on hand ready made up, enough pickers and other attendants engaged; in fact, all details carefully worked so that the crop may move uninterruptedly into the market. It requires about ten good pickers for each acre of berries.

As to the outlook of the commercial side of the loganberry industry, I believe it to be very encouraging. Because of the vigor of the plant and its remarkable

yield each season, it has found favor with berry growers who have given it an opportunity to demonstrate its powers alongside of other berry fruits. As a shipper it stands up well and, under refrigeration, should carry to almost any market. They sell readily and, where the transportation facilities are good and the means of reaching the world of consumers work expeditiously, they can be marketed right from the vine in almost unlimited quantities. The coming of the

ries. In the manufacture of jellies and jams the loganberry has no equal, and considerable of the yield is each year converted into these commodities. The loganberry is also said to make a wine not surpassed by any of the product of the American grape or by the imported article.

All things considered, the commercial side of the loganberry industry is full of encouragement, and each year's developments tend to establish it as one of



LINING UP THE BERRY PICKERS

This picture represents F. E. Beatty and his foreman lining up the pickers on his famous fruit farm at Covington, Indiana. Mr. Beatty stands at the left, instructing his pickers so that his foreman fully understands how the berries are to be picked; that they must do the work according to the foreman's orders. The foreman stands at the right ready to take full charge. With such a perfect system as this all confusion is avoided and the work made easy for foreman, employees and proprietor.

electric railways will aid greatly in reaching all nearby markets, while the long line of refrigerator cars, which the steam railroads assure us will soon be placed in operation between the Pacific Northwest and eastern cities, will create practically an unlimited demand for the fruit. Just now the problem how to reach the consumer economically and expeditiously is facing the berry growers for solution. That this will be solved satisfactorily to grower and consumer alike is not doubted. A fruit possessing all the splendid qualities of the loganberry will open up its own market just as rapidly as the consuming public becomes acquainted with its merits. Wherever its qualities have been tested, the call is for more. The canneries are taking hold of the market side of the loganberry business and are developing a new channel of trade.

The pack is each year increasing and we are assured by one of the largest canning firms in the Northwest that they will take hold of the loganberry business in earnest, can large quantities of the fruit, send trial shipments to central markets throughout the world in the belief that an extensive market will be developed and thereby share with the grower the profits of the industry. There is still another channel of trade

now opening up for the marketing of the loganberry and that is through the evaporator. The fruit, in process of evaporation, is reduced to a fourth of its original weight. Put up in packages, the berry can then be transported to any market, safely, economically and with no fear of deterioration. This process has been tested in a limited way and the dried fruit is pronounced by experts superior to the best evaporated raspberry.

the leading branches of horticulture in the Pacific Northwest.

Myrtle Point, Oregon, has a new fruit inspector, Mr. W. G. Pohl. Those who know state that Mr. Pohl will enforce



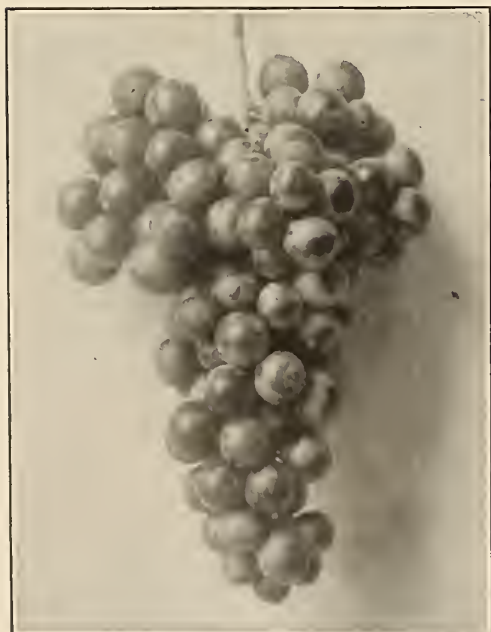
REPRESENTING SIXTEEN-CUP STRAWBERRY CRATE, FILLED WITH FOLDING BERRY BOXES

a law to compel growers to spray their trees as they should without legal action. However, compulsion in many districts seems to be necessary.



FRUIT BOXES

The accompanying cut illustrates Standard Fruit Boxes. Figure 1, Apple Box. Figure 2, Pear Box. Figure 3, Melon Box. Figure 4, Cherry Box. Figure 5, Peach Box.



KIND OF GRAPES THEY GROW AT HANFORD, WASHINGTON

GROW FRUIT BEST ADAPTED TO YOUR DISTRICT

BY W. H. PAULHAMUS OF PUYALLUP, WASHINGTON

THE Puyallup Valley is particularly well adapted to produce a most excellent quality of red raspberries and blackberries. In fact, as near as we can learn, there is that "something" in the red raspberries and the blackberries grown in the Puyallup Valley that is not found in the same variety of fruits grown

Oregon and Washington, and possibly Idaho, are destined to be the great fruit and vegetable states of the world. There is no like acreage that can produce as many different varieties of fruit so successfully as the North Pacific Coast country. For example, we know that some parts of the country are mentioned

be in a position to command all of the good things that we are entitled to. We are fortunate in having most excellent markets, a great many in our own states, and also being tributary to many great states that never will produce the fruit and vegetables they consume. We can not make a success of our business by

stove-piping the potatoes and apples. The man who tries to cheat his customers will only defraud himself. Every package should be the same through and through. We are fortunate in the fact that we can use our second grade stock in our canning plants. Any community that has not a small canning plant can establish one by an expenditure of a few hundred dollars, which should be done, as it will gradually grow into something better.

In many parts of this Northwest country the milk industry is now on a paying basis, from the fact that we have successful condensers. No section of the United States offers equal inducements to milk condensers as does the Pacific Coast country, for the reason that the water rates permit them to distribute their goods in all parts of the world so very much more cheaply than can be done in the

interior states. This causes a great leverage in finding markets for our products. Shall we make a study of these conditions and develop the industries that are open to us, or shall we permit our great-grandchildren to do it?

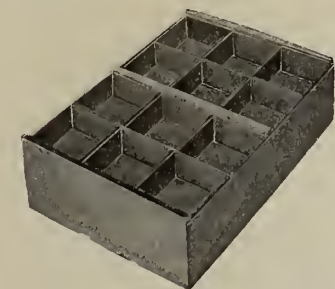


HOW STRAWBERRIES ARE GROWN IN THE EAST. COMMERCIAL STRAWBERRY FIELD OF C. E. DILTS, THORNVILLE, OHIO

elsewhere. This being a day and age of specialties, permits the growers in this vicinity to find a ready market for all of such fruit they can produce. Because

as being famous for strawberries, others for apples of a given variety, and that all apples will not do equally as well in any given community. We have certain parts of our states that will produce asparagus

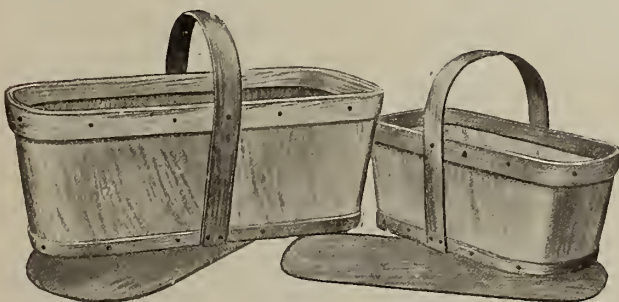
of a better texture and better flavor than can be grown elsewhere. It is a well established fact that stone fruits grown in some parts of the states mentioned are vastly superior to the stone fruits grown in California. If this is correct, our people should learn, at the earliest possible moment, just what class or variety of fruit their community is best adapted to grow, and confine themselves to that which will do the best. It is not a question with us of raising that which we like best, but of extending our energies to that which we can sell for the most money. If it is a particular kind of apples, or a particular kind of pears, or a particular kind of bush fruits or vegetables, the quicker we ascertain just what it is the better off we will be, as we can then proceed to establish this industry and find our markets and build up a successful and prosperous class of people.



CUP BERRY CRATE FILLED

our people are so successful in growing red raspberries and blackberries is no reason why they should expect the same results from all other classes of fruit. It is my judgment that the States of

The readers of "Better Fruit" are extremely fortunate in having a journal of such high intelligence, as it is one of the necessary and essential things to extend and build up an industry. If our states will produce that which we consume, thereby keeping our money at home, and raise as much stuff as we can sell to the other people, bringing their money in here, we will certainly



CLIMAX FRUIT BASKETS

For shipping grapes and small fruits. In shipping, the baskets are nested in bundles of 25. The handles and covers are tied in bundles separately. Wire or flat handles are supplied.



J. F. LITTOOY, OF MOUNTAIN HOME, IDAHO, A PROMINENT FRUIT GROWER AND AN AUTHORITY ON SMALL FRUITS.

PRACTICAL WAY OF TOP DRESSING STRAWBERRIES

BY H. P. KNOX

THE use of nitrate of soda as a top dressing for strawberries has been so repeatedly proven to be profitable that it has now become a routine practice by the more successful berry grower. As soon as the leaves show new growth in the spring, nitrate of soda is broadcasted at the rate of 150 to 200 pounds per acre, and sometimes twice this quantity is used. It is sup-

left in the soil, and about all the nitrogen needed by the crop must be applied as a fertilizer. Farmyard manure is not good for berries, as it harbors weed seeds so heavily, which must be kept back solely by the hand hoe, an expensive process.

Strawberries need plant food in rather large quantities and in readily available form. The root system is small and has narrow foraging power. A heavy growth of roots sent out in search of plant food takes off just as much of the possible growth of crowns and fruit. As to the proportions of strawberry plant food, the berries contain for every 100 pounds of nitrogen about 220 pounds of potash and 80 pounds of phosphoric acid. The vine leaves and roots contain for every 100 pounds of nitrogen about 140 pounds of potash and 90 pounds of phosphoric acid.

These figures show that small fruits need something more than nitrogen, for they are all much alike in plant food needs. The popular idea is that the potash and phosphoric acid should be applied in the fall or just after the fruiting season is over. This is a good time, no doubt, and there is very little danger of loss through washing or seepage; still, both the potash and the phosphoric acid can be applied in the spring quite as effectively as the nitrate. In fact, spring potash top dressings seem to be growing in favor, though phosphates are still supplied in the fall, that is, commercial fertilizers rich in phosphates but low in potash and nitrogen. For top dressings, the German potash salts are used, the most desirable being the high grade sulphate, and about 200 to 400 pounds are applied per acre.

There is little or no danger in heavy applications in those cases where it is desired to grow a big crop of strong stocky young plants for sale or resetting.

The need of potash in strawberry beds is shown by two main effects. If the growth of leaf and blossom is heavy but the fruit light, potash is lacking. If a



24-CUP CRATE FILLED WITH FOLDING BERRY BOXES

posed, of course, that potash and phosphates have been applied liberally in the fall, or rather, a fertilizer rich in these elements but, as is common, somewhat low in nitrogen.

Strawberries do not do so well after clover, on account of the prevalence of cut worms and also weed seeds. In fact, a clean culture crop, such as field corn, is best to precede berries. As a consequence there is little legume nitrogen



TRANSPLANTING BANDS

The accompanying cut shows Transplanting or Dirt Bands. These Bands are used in transplanting melons, squash, cucumbers, etc., from the hot bed to the cold frame or field. They are cut the same thickness as Quart Berry Boxes, and are scored to bend into a square box, without bottom. Four inches square and 3 inches deep is a standard size. They can be made 4 inches, 4 1/4 inches, 4 3/4 inches or 5 inches, and any depth up to 5 inches. The Band is joined with one tack.

heavy crop of berries is formed which fail to fill out and are simply a mass of seed, potash will cure the trouble. There is one more point. If the fruit ships badly, turns soft quickly, the fruit is not fully matured and needs potash. This fault is most generally due to carrying the nitrate of soda applications too far, that is, using it alone and making no provisions for potash or phosphates.



PICKING AND PACKING STRAWBERRIES IN THE FIELD AT HOOD RIVER, OREGON

THE FRUIT RESOURCES OF KLINKITAT COUNTY

KLICKITAT COUNTY, one of the greatest agricultural sections of Washington, lies in the southern portion of the state. It has a river frontage, along the picturesque Columbia, of about 100 miles. The county has an average width of twenty miles and an area of 1,800 square miles. There are three natural divisions of this county. The famous Klickitat Valley, particu-

of Rock Creek, while the western part in which fruit, lumber and dairying prevail, is separated from the Klickitat Valley by the canyon of the Klickitat river.

Soil

The soil in this fruit belt is deep, rich, lasting, and easy to work. The large amount of volcanic ash in it prevents lumping and baking and gives to it great

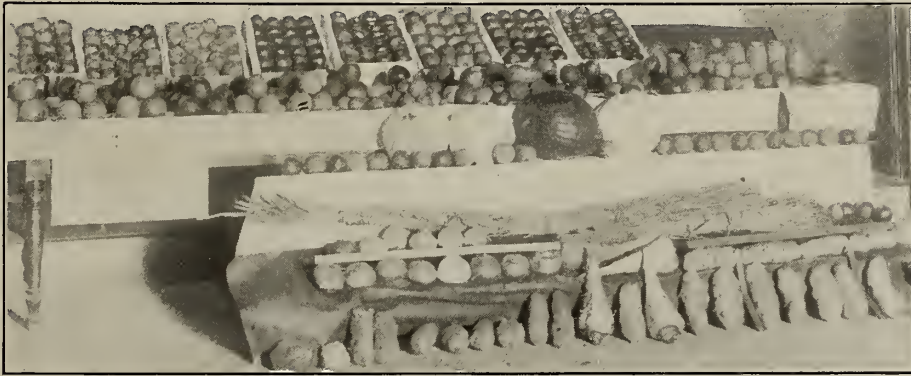
it to retain the precipitation that falls during the winter near the surface during the summer months, so irrigation is entirely unnecessary, except along the sands of the Columbia, and here are to be found numerous springs which gush out from the hillsides and pour abundant water on the land. Throughout the entire county subterranean streams of pure cold water from the mountains run in all directions only a few feet below the surface, so that there is no scarcity of water.

Climate

The climate is mild, healthful and invigorating. The lowest temperature, as shown at the weather bureau station at Goldendale, the center of the county, last winter, was only ten degrees above zero. The healthfulness of the climate is unsurpassed anywhere in the state. Malarial diseases are unknown, and, on account of the 500 square miles of yellow pine forests in the county, throat and lung diseases are not prevalent.

Fruit Lands

The fruit lands of the county embrace many square miles in extent, and but little of it is yet developed. The lack of transportation facilities in the past prevented the development of the fruit as well as the grain, lumber and stock industries. As transportation has now opened up 1,800 square miles of terri-



THE ABOVE PICTURE SHOWS ONE OF THE USUAL EXHIBITS OF A GOLDENDALE HORTICULTURE MEETING

larly noted for its fruit, grain, stock and lumber, occupies the central portion. The eastern part, noted for its grain and stock, is separated by the deep canyon

productive qualities. This kind of soil is greatly prized by fruit men, and is conceded to be the best fruit land in the state. The character of the soil causes



THIS EXHIBIT SHOWS A FEW OF THE MANY KINDS OF FRUIT THAT IS GROWN IN KLINKITAT

ory, it is reasonably expected that these industries will take great strides.

That our apples, peaches, pears, apricots, cherries, prunes and berries rank in quality and quantity, considering the infancy of our orchards, with the fruit produced elsewhere in the state, is evidenced not only by the medals and prizes we received at the Lewis and Clark Fair, but by the fancy prices our fruit commands in the markets.

Last year our young orchards were sufficiently developed to attract Portland fruit buyers, and many and loud were their praises of Klickitat fruit. On account of the undeveloped resources of the county, fruit land is yet very cheap. Similar land can be purchased here for from \$10 to \$50 per acre that sells for \$100 to \$500 per acre in other parts of the state. Great opportunities present themselves here to those who are seeking fruit land. That these opportunities are being appreciated is evidenced by the wonderful activity that is being manifested in the fruit industry this spring. In one orchard alone there has been planted this spring 18,000 fruit trees and 10,000 grape vines. Through the efforts of the Klickitat Development League of Goldendale, and other commercial clubs of the county, this spring, the dormant fruit resources of the county have been made known in every state in the Union. From the interest outside people are manifesting, it is safe to say that great strides will soon be made in developing this industry. There are now over 2000 acres in orchards and vineyards and several hundred acres more will be planted this spring. These orchards begin to bear the third year, and after that the returns are very gratifying.

One grower cleared \$20 last year from

one cherry tree, and another gathered \$25 worth from one Royal Anne tree.

A. W. Montgomery picked 18 boxes of Yellow Bellflowers from one tree.

C. O. Barnes sold over \$600 worth of strawberries from one acre last season.

A. L. Baker picked five tons of Bartlett pears from forty trees last season.

S. Z. Ziegler cleared \$462 from one acre of strawberries last season.

Captain H. C. Cook picked twenty-seven boxes of Spitzenberg apples from a single tree last season. At \$3 per box

for the entire crop from six acres. Grapes from this same place took the gold medal at the Lewis and Clark Fair.

John Trana gathered 919 crates of strawberries from two and seven-eighths acres last season. These were sold at a net gain of \$1,594.75.

These and many other cases I might cite, show some of the returns that are made from the fruit lands of the county, and these fruit lands constitute but a portion of the wonderful resources of the county. From the 1907 book pub-



BUSINESS OFFICE OF THE R. M. KELLOGG COMPANY AT THREE RIVERS, MICHIGAN
This firm is one of the best known strawberry propagators in the United States

the income from this one tree for the season was \$81.

George Wade, during the season of 1906, sold peaches from two acres of land to the value of \$300. On the same place were six acres of grapes that yielded 8,000 crates. These were sold at an average of \$1.50 per crate, or \$12,000

lished by the Bureau of Statistics of the State of Washington, I quote as follows:

"Klickitat County is not thickly settled and it offers many attractive opportunities to newcomers. The soil is productive and easily tilled, the climate is enjoyable, lands are to be had at reasonable prices and the coming of new railroads means the ushering in of a new period of growth and development."

Transportation

The Spokane, Portland & Seattle Railroad extends the entire length of the southern boundary of the county; the Oregon Railroad & Navigation Company extends down the opposite side of the river, which with the steamers plying the Columbia River give to this county a splendid transportation system.

The Goldendale branch of the Spokane, Portland & Seattle Railroad, which extends up the Klickitat Valley to Goldendale, the county seat, with the proposed extension of this branch road through the eastern part of the county, and its juncture with the Northern Pacific Railroad, together with the completion of the Washington Electric Railway, which is surveyed up through the western part of the county, will give to this county transportation facilities excelled by none in the state.



WEIGHING AND STORING STRAWBERRY PLANTS FOR FURTHER BREEDING ON THE FARM OF R. M. KELLOGG & CO. AT THREE RIVERS, MICHIGAN

THE STRAWBERRY A LEGITIMATE MONEY MAKER

BY W. H. BURKE, OF THE R. M. KELLOGG CO., THREE RIVERS, MICHIGAN

THERE are few lines of legitimate enterprise that offer anything like so great an opportunity to the man or woman of moderate means seeking an independent livelihood, as does the growing of strawberries for market. The demand for first class strawberries never is supplied, and prices for high grade fruit are almost universally high,

than 9,000 quarts of berries from a single acre in 1907, but as he sold them in Buffalo on commission, he received a little less than ten cents a quart, so that his total cash income from the acre was slightly under \$900. H. B. Steward, of Myrtle Point, Oregon, took \$1,500 in the season of 1907, from an acre of strawberries. James Calder, of Clayton,

the most encouraging experiences it has been my pleasure to know about, have been those of women strawberry growers. They usually press the children into service and thus succeed in handling comparatively large areas at a trifling outlay for manual assistance. One woman, whose letter I have had the privilege of reading, wrote from Santa Cruz, California, that in 1907 she took from one-tenth acre of strawberries, \$210 in cash. At Woodside, Minn., is a young woman of culture who supports herself with dignity and comparative ease by successfully conducting a small strawberry farm. Hundreds of other women are engaged successfully in the work.

It may be said in behalf of this line of horticulture that it is one of the safest and surest known. In the fall of 1906, when the heavy early frosts destroyed vineyards and peach orchards and even killed out many hardy apple trees over a large section of the north central states, comparatively little damage was suffered by the strawberry. So hardy that it grows upon Alpine heights, pushing up its green leaves in springtime through the snows upon the lofty summits of the Swiss mountains; so accustomed to the tropic suns that it yields from early spring until

late fall in Cuba and in other tropical lands, the universality of the strawberry plant is greater, perhaps, than any other known fruit. It will thrive and produce large crops of fine berries on any soil that will grow corn or potatoes. Set these plants in the spring of one year and they will yield an abundant harvest in the early summer of the following year, a crop that will fetch a sum suf-

offering a fine inducement to enterprising folk to engage in the business.

It is difficult to believe, sometimes, the wonderful things that are being done by strawberry growers, not in isolated cases but in hundreds of cases. Just note, for instance, the experience of G. M. Hawley, of La Mesa, California, who, under date of September 10, 1907, relates his experience for the season. From two acres of plants had been taken, up to the date named, for the season, \$2,596, and the plants were still yielding at the rate of \$60 per week. Professor S. W. Fletcher, of the Michigan Agricultural College, visited Mr. Hawley's strawberry farm in the course of the season, and will use some photographic views of that wonderful field in a book soon to be published.

Henry Clute, of Hunt, New York, engaged for the first time in strawberry growing in 1906, when he set out an acre of plants. He took excellent care of this acre, and in 1907 he received in actual cash \$888.17 from this first acre of plants that he had grown, and it is estimated that fully another hundred dollars' worth more were grown on this acre, which were given away or consumed upon the place by Mr. Clute's family and the people engaged in gathering the fruit.

John Rucker, of Boston New York, gathered more

New York, set out 1,000 plants from which he gathered, in 1907, \$310 in cash. Columbus Knight, of Falmouth, Maine, developed an income at the rate of \$1,000 an acre from his venture in strawberries. M. F. H. Smeltzer, of Van Buren, Arkansas, made \$1,078 from an acre in 1907.

Strawberry growing is distinctly a line of work fitted for womankind. Some of



STRAWBERRY FIELD PLANTED ACCORDING TO R. M. KELLOGG SYSTEM AT SEATON, ILLINOIS



EXPERIMENTAL BED—SIXTY-FIVE VARIETIES UNDER TEST ON THE KELLOGG FARM

ficient to put the grower upon his feet financially. where, had he set out an orchard of any kind, he would be able to count upon no income worthy of mention under five years, even though all the circumstances were most favorable.

The case of Henry Clute, referred to above, indicates what a novice may do in strawberry culture. Mr. Clute's experience is not an unusual one in that regard. If a man has a little plain common sense, is willing to work and intelligently care for the plants, he need have no fear but that he will succeed in strawberry growing.

We repeat that, to the man who seeks an independent living and whose means are limited, no other line of enterprise offers so great advantages as strawberry production. One need not go to the Pacific Coast or to the Gulf regions, or to any other particular place, in order to get a start. He may rent an acre or two near his own home and begin at once to do business. There never has been on the markets of this country a half supply of high quality strawberries. It is the high quality fruit that commands top prices. There is a limitless field open to the man who will grow big red strawberries, well-flavored and firm, no matter where he may be located. It is a great opportunity, and one that ought to be better understood by the man of moderate means who seeks either a change of method in securing his livelihood, or who would piece out his present income by a profitable side venture.

GRADING SMALL FRUIT

Apricots—Grade A—Must be uniform in size, firmly packed, showing some color of ripeness, perfect fruit in every particular.

Packed in five-pound tin-top baskets, contain not less than 20 pounds of fruit. Apricots not grading as above will be considered "B" grade and so graded.

Raspberries—For shipping purposes berries must not be over-ripe, but picked a little on the green order.

Berries should be picked ripen in cool weather than warm.

Pickers must not be allowed to hold several berries in their hands at the same time. Pick direct from vines into the small box or hallocks, not in buckets or baskets, place berries in a cool place as soon as removed from vines. Each box must be well filled and contain one pound of fruit to the box. Put no over-ripe fruit in boxes for shipment.

Hauling—Haul in wagon with good springs and use wagon cover or canvas to keep out dust.

Cherries—Grade A—Double face pack. Fruit of good color, packing not less than 10x11. Place first tier solid, breaking joints with second tier; allow no stems to show on face of pack when box is opened; to be free from loose stems and leaves. Pack Sour Pie Cherries, such as May Dukes, Early Richmond, etc., in strawberry crates, and face top layer; 20 pounds to crate.

Grade B—Second in size, quality and color to Grade "A."

Turn box top down to begin your pack, and face first two tiers as mentioned in Grade "A."

Peaches—Grade A—To consist of a perfect peach in every particular, uniform in size, and

must show some color of ripeness, and to pack not less than 5x8 or better; box not to contain less than 20 pounds of fruit suitable for long distance shipment and wrapped.

Grade B—Same as Grade "A" as to color and ripeness and size; suitable for medium distance shipments, wrapped and same weight as "A" grade.

Grade C—Same as "A" and "B" grades as to color and ripeness; pack 6x9 or better, and suitable for short distance shipments.

Cannery Stock—First class, over-ripe fruit, must be free from worms or other pests.

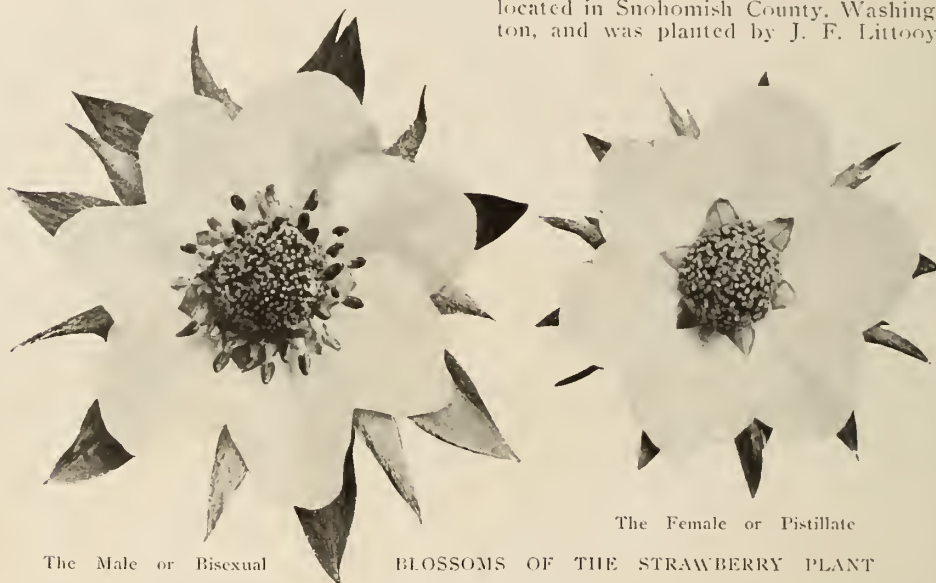
If, on inspection by any inspector of this association, any over-ripe fruit, which in his opinion will not do for

fruit be made to the several warehouses of the association not later than 9 p. m. each day. No fruit will be received or receipted for after 9 p. m. each day. It is necessary to designate an hour on account of having to load cars out same night, and to do this properly it is necessary to have time to do it.

Boxes and Packages—Keep your boxes and packages clean and neat in appearance.

In case any grower wishes box or crate material made up, he can have the same by notifying the association a few days in advance of the time packages are needed.

THE largest field of Phenomenal berries, the subject of the illustration on our front cover this month, is located in Snohomish County, Washington, and was planted by J. F. Littooy.



The Male or Bisexual

The Female or Pistillate

BLOSSOMS OF THE STRAWBERRY PLANT

shipping purposes, is found during inspection, the same shall be delivered to the cannery, and the grower so advised. And in case B grade fruit is found packed in with A grade fruit, or

who has an excellent article on small fruits on another page. Mr. Littooy was one of the pioneers in the small fruit business in Washington, having lived at Puyallup for several years, where he was



MULCHING BREEDING-BEDS ON THE KELLOGG FARMS

C grade with B grade, the package or box will be reduced to the next lower grade and the grower notified.

Delivering to Shipping Warehouses—It is very important that delivery of

connected with the fruit growers' association there. Afterwards he was a successful grower at Wenatchee, Washington, but later moved to Mountain Home, Idaho.



SYSTEM OF PLANTING STRAWBERRIES. THE DOUBLE HEDGE ROW

PRUNING AND SETTING THE STRAWBERRY PLANT

BY FRANK E. BEATTY

BEFORE entering into the subject of pruning and setting plants, I shall give a few hints on soil preparation, or I might call it soil mixing. It is at this point that many growers fail to get a good stand of plants. They get in a big rush and set their plants before they have a good soil bed prepared for them. I have seen growers turn under a heavy coat of coarse manure, then harrow just enough to level off the top surface, leaving the under part of the broken soil full of clods, which allows the top soil to dry out very quickly, while the layer of coarse manure checks the capillary action of the water, thus keeping the top six inches of soil so dry that plants cannot possibly grow. Why does a doctor always advise a patient to shake the medicine thoroughly before taking it? Simply because he wants the different ingredients perfectly mixed, so the system will get them in the right proportion. Just so with the soil. The better we mix it, the more evenly are the different plant food constituents distributed. And the plants can more easily take

up the balanced plant food, which greatly assists to secure the uniform growth of all parts of the plant. See to it that the manure and soil are thoroughly mixed together and that every clod is crushed finely and rolled firmly enough to make a compact seed bed, and remember that this work must be done before plants are set. Have your ground in the best possible condition and the rows marked out before taking plants to the field.

One man should be employed to prune the plants and get them ready for the setters, and this work should be done in a cool, shady place, away from the wind. Cut the roots back at least one-third. This is best done with a pair of old shears or a sharp knife. The full bunch can be pruned at one cut. It is much easier to set a pruned plant than an unpruned one, because the roots are shorter and easily and quickly may be placed in the opening made for the plant.

But the principal object of pruning is to increase the root system. Wherever a cut is made the roots will callous and send out many laterals or feeders, which will work their way through the soil and absorb the dissolved plant food which lies in store for them.

The best tool I ever have seen for setting plants is the dibble. With it a broad and deep opening may be made and the roots of the plant may be spread out fan-shaped, so that each root will come in contact with damp soil, and the opening is closed at once and the soil pressed firmly about the roots before it has a chance to become dry.

The lower part of the crown should stand well above the surface of the ground when set, and it will be all the better if the shoulders of the roots are exposed a little. When a plant is set in this manner there is little danger of soil being washed over the crown during a heavy, dashing rain. As a rule, the plants will settle enough during a rain so that the shoulders of the roots will be properly covered with soil. If any should remain exposed, a little soil can be drawn up to them when hoeing. It will do no harm if the shoulders of the roots remain exposed for several weeks after setting, as the feeders always start on the lower ends of the roots. Many vacancies are caused by too deep setting, and many more by not properly caring for the plants after they are set.

Here are a few simple rules which, carefully followed, will reduce the vacancies to the minimum:

1. Carefully prepare the seed bed with manure and soil well incorporated. Be sure that no coarse manure or strawy material is on the under side of the soil bed to prevent the water supply moving upward by capillary action.

2. If the plant is perfectly dormant, cut the roots back one-third. If setting is deferred until late and the plant is not dormant, simply cut off the tip ends of the roots.

3. Spread the roots out fan-shaped, and make the opening wide enough for the roots to go down straight, and press the soil firmly about the plant. Be sure that the crown or body of the plant is entirely above the top surface. Keep the plants in a cool place, away from the sun and wind and do not pour water on the plants either before or after they are set. If the roots are

quite dry, it will be all right to submerge them in water before setting the plants, but do not wet the crowns.

4. Cultivate as soon as plants are set. Repeat every eight or ten days, and always after a rain as soon as the soil will crumble. Follow the first cultivation with hoe, and if a plant is found to be set too deeply, take the forefinger and circle around the plant. This will loosen the soil so the plants can grow.

5. Remove the fruit stems as soon as they appear. Do this before buds open, if possible.

Continued on page 25



AN OBJECT LESSON IN PRUNING

This illustration shows one method of pruning. All three of the figures shown are photographs of the same plant at different stages of its development. On the left is shown the plant as taken from the breeding bed April 27, 1905. Notice the roots; how they start from the crown. The illustration on the right is a photograph of the same plant and taken a few minutes later and after it had been pruned ready for setting. It was then taken to an experimental plot and reset and allowed to grow until June 26. The central illustration shows the plant as photographed on that day, fifty-nine days after resetting. It will be seen that the roots sent out many laterals or feeders where the cut was made, as shown by the dotted lines; yet less than one-third of the new roots are shown, as the roots were so tender they broke off when taken from the ground. Otherwise the root system would have compared in size with the foliage. During that fifty-nine-day period the plant built up twenty leaf stems, four crowns, and a large, well-developed body. This is due to the fact that a Thoroughbred plant is strong and vigorous, its roots are fully ripened and thoroughly calloused, and when properly pruned, set out and cultivated, is bound to be successful.

ANOTHER VIEW OF THE GROWING OF SMALL FRUITS

BY F. E. WARREN

IN preparing the ground for strawberries I should prefer a clover sod well fertilized and planted to potatoes one season. Would plow this ground in the fall, then work as early in the spring as possible, harrowing several times over to keep the weeds down and make the soil compact and so retain its moisture for the use of the plants when needed. I mark my rows four feet apart and set plants about eighteen inches apart in the row; commence cultivating within two or three days after setting, and keep clean; cut out all blossoms the first year. I prefer the matted row and a good wide one. As to varieties, that is a matter of choice, as there is a long list to select from. I would advise planting what did the best in your immediate locality.

In growing gooseberries I would prefer a good sandy loam; would set them six feet apart each way, so as to do as much work with the horse as possible. As to varieties, I would set good, vigorous, two-year-old Downing plants. I would plant beans or some other small crop the first season, cultivate well during the growing season. After the plants are two years old, be careful about cultivating too deep close to the plants, as they are very sensitive to deep cultivation. I would spray at least three times, once before the leaves start, with copper sulphate; then, at the first appearance of worms, with Bordeaux; again, in about two weeks, and here I would say, keep a close watch on those worms, as they are hard to see, or you will be surprised some morning to see half of your plants stripped of their foliage, as they do their work very quickly.

The second year from setting they should bear a fair crop of large berries, that for the past five or six years have been selling at a profit. At two years old, one will need to do some pruning. This can be done any time during the winter or early spring. I would leave two or three new shoots each year that start as near the ground as possible, taking out some of the oldest. In this way the plant can be kept up for an indefinite period. I would grow currants in about the same way.

In growing black raspberries, I would set the plants six feet apart each way, being very careful to set nothing but the largest and best varieties, such as the Gregg, Kansas, Cumberland and the Columbian Red, any one of which do well for us. I would plant some small crop between the rows the first season. In cultivating, be careful not to cultivate too deep next the plant, as I have seen large fields destroyed by trying to do too much with the cultivator. I would pinch off the tops of the new canes when they are about two feet high, so as to make the plants stocky and able to stand up with the next season's crop. I prefer to prune in the spring, as the old wood helps to hold up the plants against the snow and winds.

Blackberries and red raspberries I would set the same as black caps, but they require deeper cultivation than most other small fruits. The second year I would use the Planet Junior cultivator with the thistle cutters on, and take pains to cut off what I don't wish to have grow and they can be kept in hills very easily, and so be kept clean much easier than the matted row, and

the patch will last longer without resetting and bear much better fruit.

In fertilizing the small fruit I would use barnyard manure if it can be obtained. Spread very lightly in the fall or early winter, as it does not dry out the ground as much as when spread in the spring.

To the person who thinks of going into small fruit growing, I would say, set a succession of fruits, as it is much easier to get pickers and keep them if you have work for every day throughout the season. Then don't get discouraged if the prices are low or the frost gets

Although the date has not yet been fixed for this fair in Salem, it is safe to say that it will be held early in July, as last year's date was July 10, 11 and 12. There is now every reason to believe that a large crop is in store for the cherry growers of the state for this season, as they have bloomed bountifully.

At the 1907 Cherry Fair over sixty premiums were awarded, including about thirty beautiful silver cups. These prizes were captured by growers from all parts of the state, but mostly by those in the neighborhood of Salem.



THE BREEDING BED ON THE KELLOGG FARMS

your crop, but stick to it and you will be a sure winner in the end.

◆ ◆ ◆

THE annual Cherry Fair at Salem, Oregon, is being looked forward to by the fruit growers of Oregon and the

The judges upon that occasion were leading fruit men of the Northwest and the greatest satisfaction prevailed. Upon the occasion of this fair the Pacific Coast Nurserymen's Association held its annual meeting in Salem, and the



PLANT-SETTING BRIGADE ON THE KELLOGG FARMS

entire Pacific Coast with keen interest; indeed, fruit experts in all parts of the continent are watching this event, as it stands for the best exhibition of the best cherries grown anywhere in the world.

delegates were so thoroughly imbued with the importance and grandeur of the cherry crop that by unanimous vote Salem was declared the Cherry City of the World.



SYSTEM OF PLANTING STRAWBERRIES. THE SINGLE-HEDGE ROW

DOINGS OF FRUIT GROWERS OF THE NORTHWEST

OREGON fruit will have a good year, if the reports of its horticultural commissioners are any indication. These are not only to the effect that the yield should be a good one, but that the output will be the largest in the history of the state. Other matters that engaged the attention of the commissioners at their meeting was some method of staying the ravages of pear blight and a movement towards eradicating all diseases that affect fruit trees.

Wenatchee, Washington, is again fortunate this year in getting the services of Professor Melander to conduct spraying experiments there. The experiments will be made for the purpose of determining if possible how to eradicate the

codling moth, and will include all of the brands of arsenate of lead and the dust spray. Results already obtained have been highly satisfactory and have done much for the Wenatchee district. Those to be made this year are expected to still further check the inroads of that pest.

Grand Junction, Colorado, was again unfortunate this year in being hit by frost. According to reports sent out by the Grand Junction Fruit Growers' Association, all the districts in that section were hurt some. It is estimated that the Palisades section, which was expected before the frost to ship out 400 cars of peaches and 100 cars of apples, will now ship 300 cars of the former and 100 cars

of pears and apples. In the Clifton, Grand Junction and Fruita districts the loss is estimated at about 75 per cent to peaches and pears and 50 per cent to apples. The report ends by saying that this estimate may be too high and that later developments may show that the crop is not damaged as much as was thought.

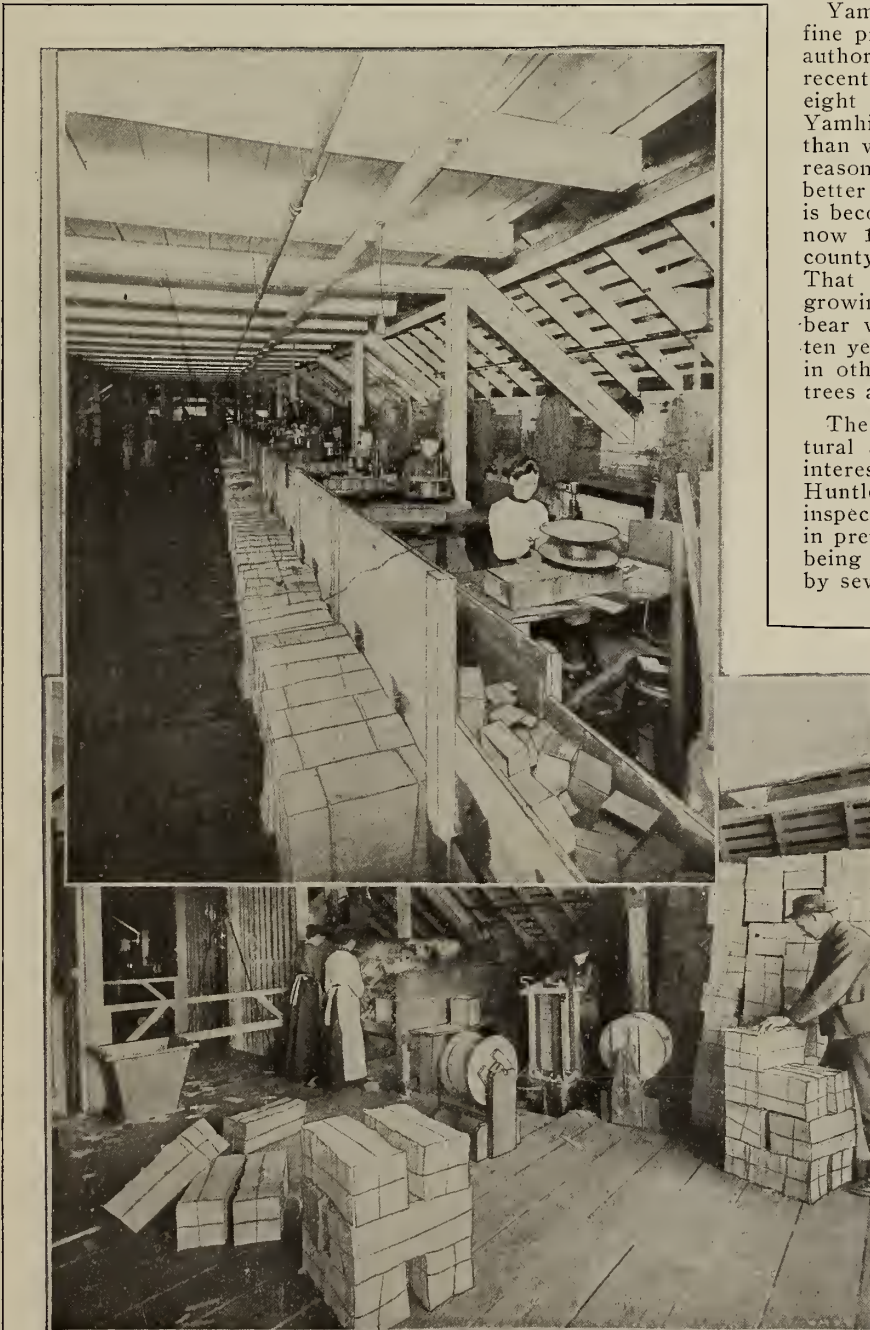
Josephine County, Oregon, is evidently soon to come into its natural place as a great fruit raising section. Through the efforts of W. B. Sherman and several other enterprising men there, its fertile acres are being set to many more acres of pears, apples and grapes. All of these fruits do well there, particularly the grape, which has proved a great commercial success.

Yamhill County, Oregon, walnut growers received fine prices for their product last year. A well known authority in speaking of the walnut industry there recently said: "Last year New York dealers offered eight cents a pound for English walnuts grown in Yamhill County. This is three cents a pound more than was paid for any other nuts in the market. The reason for this is that the Oregon walnuts have a better flavor. The walnut industry in Yamhill County is becoming one of the biggest in the state. There are now 1500 acres planted in English walnuts in that county, and this acreage is being increased this year. That Yamhill County is the ideal spot for walnut growing is shown by the fact that the trees begin to bear when they are five or six years of age, and at ten years of age bring in returns of \$100 an acre, while in other places the orchards are of no value until the trees are from fifteen to twenty years of age."

The annual meeting of the Stevens County Horticultural Society was held May 16 at Kettle Falls. An interesting address was delivered by Professor F. A. Huntley, state fruit inspector, on the benefits of fruit inspection, showing the many advantages and benefits in preventing diseased and imperfect young trees from being planted by the purchaser. Addresses were made by several local speakers. The officers elected for the coming year were: President, George W. Dexter, Meyers Falls; vice presidents, A. M. Gill, W. H. Stewart, Northport; George Knoff, Colville; W. H. Brownlow, Chewelah; M. D. Etinger, Maud; D. O. C. Reynolds, Cedonia; secretary, W. S. Roberts, Kettle Falls; treasurer, O. A. Atwood, Kettle Falls; board of trustees, Dr. A. E. Blakely, H. W. Sparks, Kettle Falls; Bert Curry, M. L. Morton, Meyers Falls; A. N. Arys, Harvey; J. P. Curry, Bossburg; F. G. Carlisle, Kettle Falls.

Columbus County Horticultural Society held an interesting meeting at Dayton, Washington, on May 16, for the purpose of perfecting a permanent organization and discussing matters relative to the fruit industry in that section. Among the matters discussed were those of thinning, pruning, spraying and cultivation with the object in view of producing better results. A committee was also appointed on constitution and by-laws, and a strong effort will be made to get all growers in that district to join the organization.

Lewiston, Idaho, received its first shipment of Snake River cherries May 15. The fruit came from the orchard of Harry McKenzie at Hunts Landing, and the Snake River crop of cherries this year will reach fifty cars. The entire fruit crop of this section is expected to reach 250 cars this season, and is said by experts to be the largest and best in its history.



MAKING AND PACKING FOLDING BERRY BOXES FOR SHIPMENT IN THE FACTORY OF THE NATIONAL LUMBER & BOX CO., HOQUIAM, WASHINGTON

THE PROPER CULTIVATION OF THE DEWBERRY

THE dewberry, which is a running vine blackberry, is an important crop in some sections. It follows the strawberry and ripens before blackberries. It can be grown on a variety of soils, but a sandy loam gives best results, and one with a clay subsoil not deeper than two feet is the ideal soil.

It will not endure wet soil, yet the crop requires a large amount of moisture when the fruit is developing and ripening. Professor F. C. Reimer of North Carolina says in a recent bulletin that when once established the yield should be at least 100 crates per acre (3,200 quarts), and the profits during good seasons about \$100 per acre.

The soil should be well prepared by cultivation of other crops for two or three years, before setting dewberries. Plenty of manure or plant food and humus in other forms should be worked into the soil. The plants are propagated by tip layers or root cuttings. In the south they can be planted in either spring or fall, but usually fall planting is preferred, because the plants become well established before hot, dry weather of summer.

They should be carefully dug and planted as soon as possible. Two methods of planting are employed. If the canes are trained to stakes, the plants are set in squares from four and a half to six feet apart each way. When the canes are trained to wires, the rows are placed from eight to ten feet apart, and the plants from one and a half to two feet in the rows.

Clean and frequent cultivation is given during the first season to keep the soil mellow and moist and free from weeds. At the beginning of the second season the stakes or wires are put up. Stakes about two inches square and seven feet long, of durable wood, are driven two

feet deep close to each plant, and the vines tied to this. Some use two and some three ties.

Where wires are used, strong posts are set about forty feet apart in the row, and along them two No. 9 wires are stretched. Some use one wire, but two give much better results. The first wire is placed about two and a half feet from the ground, and the upper wire four and a half to five feet. The vines are tied in a bunch loosely to the lower wire, then divided in two portions and tied about a foot apart to the upper wire.

Good clean culture and liberal feeding with manure or other plant

the ground immediately after fruiting. At once remove the tops. Then plow the ground well, fertilize with some quick-acting fertilizer, such as 600 pounds of cottonseed meal, or 500 pounds meal and 100 pounds nitrate of soda, to make a quick growth of vine to fruit the following season. If dewberries are grown for market they must be picked as soon as

fairly well colored and while still firm, so that they will bear shipments. For home use the fruit should stay on the vines until thoroughly ripe. They are commonly picked into quart baskets, and as soon as picked should be taken to



AN IDEAL MOTHER STRAWBERRY PLANT

foods are given each year thereafter. Anthracnose is the most troublesome disease. Where this appears it is necessary to cut off all the vines even with

a cool, shady place. A thirty-two-quart strawberry crate is generally employed for shipment.



Good Investments

FORTY ACRES, ideal home and one of the finest developed fruit ranches in Hood River Valley; five miles from postoffice, on main road; modern eight-room house, telephone, electric lights, water in the house; beautiful grounds and magnificent view of valley and mountains; new barn 24x40, other good outbuildings, outdoor cellar lathed and plastered; eight acres in full bearing orchard, value of this year's crop not less than \$4000; one and one-half acres in two-year-old Newtown and Spitzenberg apples; sixteen acres in yearling trees of same varieties; acre and one-half strawberries between the rows; garden and fruit for home use; about ten acres in meadow; good soil and in high state of cultivation; trees are in very best condition. Price \$22,000; cash \$7500, balance easy terms at seven per cent.

TEN ACRES of the most beautiful land in the Hood River Valley, and one of the "show" places of this famous fruit district; level as a floor and every acre cultivated; on main road, two miles from postoffice; five acres one-year-old, three acres two-year-old and two acres three-year-old Spitzenberg and Yellow Newtown apple trees in finest possible condition; five acres strawberries between the rows, value of crop annually, \$1500 to \$2000; this will decrease gradually, the apple crop taking its place. Buildings all new; neat five room cottage, with six magnificent oak shade trees; large new barn and other outbuildings in good condition; pretty lawn and grand view of Mount Hood and Mount Adams. An excellent buy; \$10,000; terms, \$3000 cash, balance \$1400 a year for five years, interest eight per cent.

We have a large list of all kinds of improved and unimproved property, ranging in price from \$50 to \$2000 an acre. Write to us.

Briggs-Ament Land Company

Room 6, DAVIDSON BUILDING

HOOD RIVER, OREGON

HOOD RIVER VALLEY presents an unusual number of attractions to the intelligent man of means. Fruit growers in this famous valley make \$300 to \$1000 per acre profit. The climate cannot be surpassed in the state, being located in the Cascade Mountains between the two snow-capped mountains, Mount Hood and Mount Adams. It is never hot and being less than 200 miles from the coast it is always tempered by the sea atmosphere. The scenery is beautiful; it is magnificent; it is grand. The valley is healthy, extremely so. It is located within two and a half hours' ride from Portland, the largest commercial city west of Denver and north of San Francisco, which affords an opportunity to visit the city to attend an opera or theater at a small expense, as a round trip costs but \$3.25. Four trains daily each way and two boats.



LYLE, Washington, reported early strawberries May 10, and the greater part of the crop was sent to market by June 1. The berries were of fine quality and brought good prices. The fact that they could be shipped direct to the buyer over the new railroad that has recently been built into Lyle is expected to result in a very large setting of plants during the coming year, particularly in view of the fact that fine berry land can be bought there at a very low price.

A BRIEF DESCRIPTION OF WHITE SALMON VALLEY

CONTRIBUTED

SINCE there have been many calls for literature describing the country back and adjacent to our little village, and knowing how difficult it is to give a graphic description so that one not used to the mountains can form a true conception of its beauty or its usefulness, we undertake this with a feeling of great responsibility. Our village is

throughout this settlement. Camas Prairie is another dairying district lying about twelve miles east of Trout Lake, with low mountains between. This district grows much wild hay, as well as clover. It supports a fine cheese factory. Camas has one saw mill, so has Trout Lake. There are four or five other saw mills nearer the White Salmon

our North Bank Railroad, which is now in operation and running regular trains, this valley is destined to become the Hudson of the West. Strawberries have been a paying crop near White Salmon, the average crop being from \$300 to \$400 per acre net. Mr. R. D. Cameron realized \$1000 per acre from a six-year-old apple orchard. All of this is done on unirrigated land, and as it has been found that fruit from unirrigated land will stand shipping better than fruit raised by irrigation, this fruit is in great demand. The famous Spitzenberg apple does well and colors to perfection. Land that will produce these may yet be bought at a low figure.



A MOTHER STRAWBERRY PLANT IN FULL FRUIT

situated on the hill about 400 feet above the Columbia, and about a mile from the mouth of the White Salmon River. Cycloramic photographs have been taken of this place from various positions which fill one with inspirations for the beautiful, and is poetry within themselves. We have heard aged people say that something makes them feel younger. Some have said that they could almost rise and fly. Whether it is the ozone of the mountain, or whether it is the scenery, or both, we do not pretend to say, but suffice it to say that it is worth while to live where the conditions produce such buoyancy of life. It makes man feel as the poet said: "Man is too much of heaven to stay, too much of earth to rise and fly away." The White Salmon River is a mountain stream about forty miles long. It empties into the Columbia opposite Hood River. It has its source in the melting glaciers of Mount Adams. Almost its entire length it is a succession of falls or rapids. It is used for floating thousands of logs annually for a distance of twenty-five miles to the Columbia. There is scarcely a mile of this river that would not afford an excellent water power. There are some places that cannot be excelled for a power plant site, and this utility would greatly enhance the value of and develop the surrounding country. It is unlike the Hood River Valley inasmuch as Hood River Valley broadens toward its mouth, while the White Salmon Valley broadens toward its source. The irrigated hay ranches about Trout Lake, twenty-five miles from the Columbia, support a fine dairy. Clover in this district, under irrigation, grows to perfection and prosperity and is in evidence

than these, whose product comes out via White Salmon. The country abounds in fir and pine timber, the demand for which promises to be good. These natural products make a stepping stone to higher agriculture. As the timber is cleared away the land is set to fruit or grass, or whatever the locality makes especially adaptable, which seems to be principally fruit. This valley has not kept up with the famous Hood River Valley, because of the lack of shipping facilities. But with the completion of

PRUNING AND SETTING STRAWBERRY PLANTS

Continued from page 21

6. Remove first runners, unless the plant is growing vigorously.

7. When the plants are in shape to send out runners, layer them where you want them, and draw a little soil over the runner cord just back of the node.

Please note the object lesson in pruning, as illustrated on the preceding page. The three figures shown are from photographs of the same plant at different stages of its development. On the left is shown the plant as taken from breeding bed April 27. Notice the roots, how they start from the crown. The illustration on the right is a photograph of the same plant taken a few minutes later and after it had been pruned ready for setting. It was then reset and allowed to grow until June 26. The central illustration shows the plant as photographed on that day, fifty-nine days after resetting. It will be seen that the roots sent out many laterals or feeders where the cut was made, as shown by the dotted lines; yet, less than one-third of the new roots are shown, as the roots were so tender they broke off when taken from the ground. Otherwise the root system would have compared in size with the foliage. During that fifty-nine-day period the plant built up twenty leaf stems, four crowns and a large, well-developed body.



HOW STRAWBERRY PLANTS CAN BE SPRAYED TO THE BEST ADVANTAGE.

ITEMS OF INTEREST FROM HERE AND THERE

CLARKSTON, Washington, has reorganized its cannery company and recently bought \$5000 worth of new equipment, and a new building to cost \$4000 more will be erected on a site adjoining the Northern Pacific Railroad. The manager is J. H. Sprague.

Boise, Idaho, growers report that they expect the biggest fruit crop ever known in that district. Pears, peaches, prunes and apples are all said to indicate an exceptionally large crop, although apri-

under the firm name of R. B. Bragg & Co., that the people can depend on getting the most reliable dry goods, clothing, shoes and groceries at the most reasonable prices that are possible; try it.

Payette, Idaho, capitalists are seriously considering the proposition of going into the raspberry business on a huge scale. The idea is to raise this berry in big quantities and dry them for the winter markets. It is claimed that raspberries for this purpose will net growers \$100



WAREHOUSE OF THE FRUITGROWERS' ASSOCIATION AT PUYALLUP, WASHINGTON, THE LARGEST BERRY SHIPPING CENTER IN THE NORTHWEST

cots were somewhat damaged by frost. Spraying this year is reported to have been more thoroughly done than in previous seasons, and growers are expected to reap much benefit from this fact also.

Almost the whole world knows of Hood River as a place that produces the best fruits, and all of Hood River Valley should know, and could know, that there is one place in Hood River,

per acre, and that they can be produced very cheaply.

Asotin County, Washington, estimates that its fruit crop will this year reach in the neighborhood of 1,400 cars and be worth \$1,000,000. About one-half of this is expected to go to the canneries and the rest will be shipped out. The number of acres planted to fruit in Asotin County is stated as 3,002 acres.



SHIPPING STRAWBERRIES FROM THE WAREHOUSE OF THE HOOD RIVER FRUIT GROWERS' UNION

Okanogan NURSERIES

We have not another fruit tree to sell this season. We have however, a fine line of roses, shrubs, shade trees, berries and grapes

OMAK, WASHINGTON
OKANOGAN COUNTY

COMMERCIAL SPRAYING

Nets from \$5.00 to \$50.00 per day. We have a special plan for assisting one reliable man in each county to build up a profitable business

Write for details of our plan, stating your experience and naming two references

American Horticultural
Distributing Co.
MARTINSBURG, WEST VIRGINIA

Established 1863 by J. H. Settlemer
420 Acres Devoted to Nursery Purposes

THE WOODBURN NURSERIES

FRUIT TREES, SHADE TREES,
SMALL FRUITS, ORNAMENTAL PLANTS,
EVERGREENS, ROSES, ETC.

THE WOODBURN NURSERIES have been in existence forty-four years with only one change of ownership. Tree growing is our profession and our stock is not the result of experiments, but knowledge.

F. W. SETTLEMIER

Agents Wanted WOODBURN, OREGON

GENERAL NURSERY STOCK

SOUTHERN OREGON
NURSERY
OAKLAND, OREGON

True to Name Nursery Offers to Planters

For fall, 1908, a choice stock of apple, cherry, pear and peach, including all the leading varieties adapted to this locality, with special reference to Yellow Newtown and Spitzenberg Apples, Lambert, Bing and Royal Ann Cherries, Buere D'Anjou and Comice Pears, Foster, Elberta, Salway, Early and Late Crawford Peaches. All buds and scions selected from the best bearing orchards in Hood River. Price list on application

H. S. GALLIGAN

Phone Home 2002K Hood River, Oregon

LAND

OF BIG, RED APPLES

WE ALWAYS HAVE SOME
CHOICE TRACTS TO OFFER

At popular prices and sell them strictly on their merits.
Years of study given to Hood River and its products.
Can sell you intelligently. Call on or address

Geo. D. Culbertson & Co.

Leading Land Agents Hood River, Oregon

Underwood and Little White Salmon Choice Fruit Land for Sale

I have a number of choice places for sale,
improved and unimproved. Some with good heavy
timber, ranging in price from \$18.00 to \$100.00
per acre. I make a specialty of small tracts

F. W. DEHART

UNDERWOOD, WASHINGTON

All Sunshine and Dollars

No mud nor snow. Three hundred and
sixty-two feet altitude. Five hundred
dollars monthly for life by owning a
forty acre Kennewick-Finley fruit ranch.
Write for 1908 price list of three thousand
and acres at seventy-five dollars. Concrete
building and business for sale right

HANSON & RICH

OWNERS

KENNEWICK, WASHINGTON

ALL KINDS OF SEEDS

Best of Quality

McREYNOLDS & Co.

HOOD RIVER, OREGON

OREGON LIVE OAK

Will Beautify Your Grounds

2 to 3 feet, \$3.00 each

3 to 6 feet, \$4.00 each

Photo of our Mammoth tree, with
samples of winter foliage, 25 cents
Six trees to one address, limit

BEN A. LOWELL

WOODVILLE, OREGON

OREGON CHERRY FAIR TO BE HELD AT SALEM

ALTHOUGH the exact date has not yet been fixed, great progress is being made in the matter of the Oregon Cherry Fair, to be held at Salem early in July. It will be held under the auspices of the Salem Board of Trade and the Marion County Fruit Growers' Association, and these two organizations undoubtedly number in their membership the most active fruit growers, and especially cherry growers, in the great fruit belt of the Willamette Valley.

The present indications are that the

the growth of the cherry industry contiguous to Salem has been marvelous in the past five years. It is believed that the acreage has quadrupled in the past two years, as it had nearly done in the preceding three years. Cherry growing is now beyond all experiment and in a normal status.

As in the past, the Annual Cherry Fair will offer growers, packers and canners such inducements in the way of premiums as will bring out the very best exhibits that can be produced. Hun-



VIEW SHOWING PROPERLY SET BLACKBERRY FIELD BELONGING TO W. H. PAULHAMUS, AT PUYALLUP, WASHINGTON

cherry crop will be one of the best in the history of the industry in this section, and that means that it will be one of the best in the history of the world. The cherry trees are not overloaded as they were in many instances last year, and the result will be a much finer quality and larger-sized fruit. This means, without doubt, that the season will produce the largest and best cherries ever known. The peculiar climatic conditions in the central Willamette Valley are especially adapted to the perfect development of this delicious fruit, and the conditions being favorable makes the predictions safe that we shall have a quality of fruit never before known. Furthermore, the quantity, owing to increased acreage, will be larger than ever. By consulting the figures of the canneries and shippers it is learned that

dreds of people came long distances to see this fair last year and there are already assurances of some visitors from east of the mountains and as far as the Atlantic Coast, in order to not only witness this exhibition of fruit, but to study the conditions and possibilities of this wonderful product.

The exact date of this unique fruit show will be given later.

◆ ◆ ◆

Warning to Packers

The market is flooded with imitation, short count, so-called "Cement Coated Nails." Pearson's are the only genuine full count. See that you get them. If you do not, the seller makes more on the imitation and you make the loss, and at the same time you make a poor box. "PEARSON" on the keg stands for QUALITY and HONEST COUNT; all others are inferior. Order Pearson's Nails.

J. C. PEARSON COMPANY,

Sole Manufacturers.

A. C. RULOFSON COMPANY, San Francisco,
Pacific Coast Sales Agents.



WAREHOUSE OF THE WENATCHEE FRUIT GROWERS' ASSOCIATION AT WENATCHEE, WASHINGTON

BETTER FRUIT

HOOD RIVER, OREGON

OFFICIAL ORGAN OF
THE NORTHWEST FRUIT GROWERS' ASSOCIATION
A MONTHLY ILLUSTRATED MAGAZINE
PUBLISHED IN THE INTEREST OF UP-TO-DATE
FRUIT GROWING AND MARKETING

ALL COMMUNICATIONS SHOULD BE ADDRESSED AND
REMITTANCES MADE PAYABLE TO
BETTER FRUIT PUBLISHING COMPANY

E. H. SHEPARD
EDITOR AND PUBLISHER

W. H. WALTON CHRIS GREISEN
ASSOCIATE EDITOR SOLICITOR

SUBSCRIPTION PRICE \$1.00 PER YEAR
IN ADVANCE IN UNITED STATES AND CANADA

FOREIGN SUBSCRIPTIONS, Including Postage, \$1.50
ADVERTISING RATES ON APPLICATION

Entered as second-class matter December 27, 1906,
at the postoffice at Hood River, Oregon,
under act of Congress of March 3, 1879

IN publishing our small fruit number we have devoted it largely to the strawberry, considered by many authorities the king of all plant fruits. For many of the illustrations we are indebted to the R. M. Kellogg Co., of Three Rivers, Mich., and selected them because they are practical and give a technical demonstration of how to grow this fine berry. Whether the strawberry is the finest of all small fruits is, of course, largely a matter of taste. However, there is no question as to its popularity, and the heavy demand for it places it in the foremost rank as a money maker among berries. Compared to other small fruits which are canned or cured, the output of the strawberry in this form is small. This is accounted for by its being a good shipper. It can be placed to advantage at long distances from its home and its toothsome creates a never failing demand at profitable prices. We believe our readers will find much of profit and instruction about the strawberry and other small fruits in this number, and that it will prove one of the most valuable to the berry grower we have issued.

REPORTS from many districts in the Northwest show that while the season is a backward one, no harm has been done the fruit crop and that indications were never better for a fine yield. This is particularly true of the strawberry crop, the cool weather having kept berries from ripening rapidly and allowed them to develop to an unusually large size. The set on apple, pear, peach and cherry trees is also extremely heavy. It is, therefore, safe to say that this year will see the largest fruit crop in its history shipped from the Northwest. Close observers look on the coming yield as a more thorough test of what may be expected in the way of standard prices for Western fruit than has yet been possible, and believe this year's crop will tell the story. There does not, however, seem to be much room for apprehension. Already buyers are reconnoitering or sending inquiries to many districts and are apparently just as eager for fancy Western box apples as last year, when the crop was a short one. They have found that it pays to handle the best, and that the trade which they have established insists on having it. So far, the distribution of fancy fruit in the large Eastern cities has been limited.

While the shipment to Eastern markets has been large it has gone largely to the big cities on the Atlantic seaboard and Europe. So far, New York has been the Mecca of big prices for fancy fruit. For several years its buyers were almost alone in their quest of the high-grade apples, pears and other fruits of the West, but not so now. Each year sees a greater influx of buyers, a wider distribution of the product and a consequent greater market. More buyers sought Western fruit last year than ever before, and it is but logical to expect that still more will seek it this year. A superior article once placed in the hands of the public is far on its way to success. There is no better judge of this fact than the consumer, who knows what he wants and, as he pays, insists on getting it.

While it cannot be expected that prices will rule as high as they did last year, there is every reason to believe that they will be highly profitable, that crops will be larger, and that the returns received, both individually and collectively, will exceed those of the previous season.



Paragraph Pulpit

(The Church)

Read a little book called "The Church of Today," by Rev. J. H. Crooker, published conjointly by the Congregationalists, Universalists and Unitarians. It is one of the noteworthy books of the year. Here is one of its pregnant sentences: "The Church rests on **human need**; it is created and sustained by **human need**. It is the 'Church of God,' because it ministers to those supreme necessities of the spiritual life which God has implanted and organized in human nature. Deeper than this we cannot go; wider than this we cannot reach; a foundation more precious or permanent than this we cannot imagine." (Unitarian P. O. M., 346 Yamhill street, Portland, Oregon.)



CHERRY ORCHARDS

CLOSE TO SPOKANE, WASHINGTON

Will be more profitable, according to experienced fruit men, than the famous orange groves of California. The choicest varieties of cherries, apples and pears, the three most profitable fruits grown in the Northwest, reach perfection in the irrigated orchards of the Spokane country. We are handling irrigated fruit land within six miles of the center of town, with every city convenience. Five and ten-acre tracts. Prices are low and terms exceptionally easy. We plant any variety of fruit trees and take care of them one year free of charge if desired. We handle irrigated land exclusively and only the best of that. Spokane is the biggest and most rapidly growing city in Eastern Washington and Idaho, and irrigated orchard land so close to the city will be immensely valuable.

Write us for full information.

NEELY & YOUNG, INC. Club Building, SPOKANE, WASH.

SPEAKING of advertising, Better Fruit is getting splendid results in attracting investors for the various districts that have used its columns for purpose. One reason for it is the fact

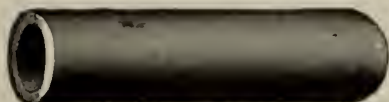
THE Sunnyside Nursery Company

Incorporated

Large and Complete Line of Nursery Stock

We will have ready for the market for fall or spring trade 200,000 each of Spitzenberg, Winesap and Yellow Newtown. In fact, about 1,000,000 trees of staples. We have the largest stock of Winter Banana apples in the west—stock from a famous orchard in Wenatchee. This is the coming commercial apple. We can handle your order, no matter what the size. Write to us at Sunnyside for prices. Nurseries at Sunnyside, Grandview and White Bluffs.

Salem Tile Factory



GOLD MEDAL

Highest award on Tile at Lewis and Clark Fair

Tile From 3 to 12 Inch

Order carload lots or for further particulars
write for booklet or call on or address

J. E. MURPHY

Fairgrounds Post Office, Oregon

Cupid Flour

Has same standing in the Flour Trade that Hood River Apples have in the Fruit Trade. *Made by*

HOOD RIVER
MILLING CO.

THE HOOD RIVER LAND EMPORIUM

HOOD RIVER, OREGON

POSSESSES

CLIMATE—A desirable medium between the drier eastern and the more moist western conditions of the Northwest.

SOIL—Volcanic ash, rich in phosphates, and recognized as the best in the world for apples and strawberries.

Makes a specialty of real estate, conveying, loans and surveying. The president, John Leland Henderson, is a practicing lawyer residing in Hood River, and has been identified with the Hood River Valley for thirty years.

HILL MILITARY ACADEMY

A BOARDING and Day School for Boys
Manual Training, Military Discipline, College Preparation. Boys of any age admitted at any time.

WRITE FOR
ILLUSTRATED
CATALOGUE

DR. J. W. HILL
PROPRIETOR AND PRINCIPAL
PORTLAND, OREGON

S. E. Bartmess

Furniture, Rugs, Carpets,
and Building Material

*Undertaker and Licensed Embalmer
for Oregon and Washington*

Hood River, Oregon

that we confine our exploitation articles to facts and are thus enabled to back our statements with personal letters. Added to this is the large distribution each month of hundreds of copies of our publication by railroad companies and commercial clubs, in addition to our large circulation which reaches the actual fruit grower, and who, in numerous instances, sends his copy to an Eastern friend. From many districts we have unsolicited testimony of the direct results of advertising in Better Fruit. Write us for our rates—for we know that we can get you results.

PORTLAND'S Rose Festival did much to spread the fame of Oregon and the Northwest. Thousands of visitors from far and near witnessed the flower show and street pageants and undoubtedly went their way telling of the attractions and resources of a country that could produce such a wonderful spectacle.

Stephens & Hause

FRUIT LAND

IN SMALL AND LARGE TRACTS
near Goldendale, Washington, in one of the best newly developed fruit belts on the Pacific Coast. We also have some choice wheat farms, meadow land and stock ranches for sale.

For information and description write

STEPHENS & HAUSE
Goldendale, Klickitat County, Washington

LINDSAY & CO. LTD.

Established 1883

Helena, Montana Billings, Montana
Great Falls, Montana

We were among the first handlers of Hood River strawberries and have handled them each year since strawberries were grown at Hood River. We handle all kinds of green fruit, and invite correspondence with shippers of first-class fruit only.

KIMBALL CULTIVATOR

PRICE \$16

Is the one to use in all feet wide, very easy to which prevents striking No hoeing of trees where used on it in orchard, fern, pink, sorrel, oats, thistle it has no equal.

F. O. B.

orchards. It is 8½ guide, has a fender the tree with knife. used. Two horses or for destroying briars and Canada



In using this implement the driver will stand in center of board, over knives, and to guide it will step to right or left, as occasion requires, and if anything should catch or gather on the knives the driver will step forward on draft board, tilt the handle forward, raising the knives, so that anything that had gathered on them may free itself. Keep all of the burs tightened and should any of the knives get bent out of shape force them back to place without removing them from the frame. Manufactured by S. P. KIMBALL, Salem, Oregon

WHEN WRITING ADVERTISERS MENTION BETTER FRUIT

WHOLESALE

RETAIL

THE DALLES NURSERIES

R. H. WEBER, *Proprietor*

THE DALLES, OREGON

Grower and Dealer in FRUIT,
SHADE AND ORNAMENTAL

TREES

GRAPE VINES & SMALL FRUITS
EVERGREENS, ROSES & SHRUBBERY

REMEMBER—OUR TREES ARE GROWN STRICTLY
WITHOUT IRRIGATION

SOUTHERN OREGON FRUIT LAND

Two hundred acres second bench, partly cut over timber land, deep red soil, lays well, on best road in county; seven miles from Grants Pass, quarter mile from school; adapted to the raising of apples, pears, peaches and grapes; R. F. D. and rural telephone. Sold in any amount from ten acres up. \$32.50 per acre.

JOHN H. ROBINSON

Route 2, GRANTS PASS, OREGON

APPLE LAND

Near Goldendale, Washington. A newly developing fruit district on the Portland and Seattle Railroad, adjacent to Hood River and The Dalles, Oregon, with the same soil as in the famous Yakima Valley, Washington. Fruit land here equally as good as that in any of the above districts at a much lower price. Unparalleled opportunities for investments. Correspondence solicited E. H. LEE, Goldendale, Wash.

H. R. A.

HOOD
RIVER

APPLE LAND

H. R. ALBEE

HOOD RIVER, OREGON

ORIGIN AND CULTURE OF THE STRAWBERRY

Continued from page 10

beetle hibernates under old dead grass and any kind of litter. For this reason the best preventive is clean cultivation and rotation of crops. The beetle feeds upon the leaves, while their larvae work on the fibrous roots of the plants. As the beetle is a chewing insect it easily may be controlled by spraying with Paris green.

The Leaf Roller

The strawberry leaf roller is hatched from eggs which are laid in the spring by a reddish brown moth. The larva attains its full growth in June and is brownish or greenish in color. It is nearly half an inch long and has a shiny yellowish head. It folds the leaves by bringing the upper edges together and fastens them by a silken web. There are three or four broods each year. This pest, like nearly all others, may easily be destroyed by burning the entire field over after fruiting time. Spraying with Paris green also will destroy the leaf roller, if the spraying be done before the leaf is folded together; but after the leaf roller has enclosed itself in the leaf it is difficult to put poison where it will get it.

The Strawberry Slug

This insect comes from a four-winged fly which deposits its eggs within the leaf tissues or on the stem. The larvae soon hatch and feed upon the leaf, gnawing circular holes through it and making it look like a veil. In five or six weeks they develop into a full-grown green worm about three-fourths of an inch long. They seem to have a particular love for young plants previous to fruiting. A good spraying with Paris green or any arsenite solution will destroy them. Burning over after fruit is gathered will help control it.

The White Grub

The May beetle or June bug is responsible for the white grub. These insects delight in feeding upon plants that have wiry roots, and are most generally found in soil where timothy sod has been growing for years. Old manure piles which have stood for some time are generally the hibernating place for them.

Inasmuch as the white grub has an underground habit, it is rather difficult to get at them. Just as soon as they attack the root of a strawberry plant, the foliage will wilt, having the appearance of suffering for moisture. About the only remedy is to dig down to the roots of the plant upon first sight of this wilting, and kill the grub. If this is done at

once the plant often can be saved. One of the best preventives is to break up your ground in the fall and let it stand in the rough over winter. This exposes the grubs to freezing and thawing, and also the attacks of birds and other lovers of their carcasses. Hogs, chickens and turkeys will leave corn to eat the grubs, and if your piece of ground is situated so these friends can be turned in they will root and scratch a large percentage of the grubs up and devour them. The grub when full grown is nearly one inch long and about as large through the body as a lead pencil. They are generally white, with yellowish or brownish head. Rag weeds and foul stuff of any kind afford them a hiding place. Here is another reason why you should practice clean cultivation.

The Sawfly

The sawfly is a small, dull-colored worm about one-fourth of an inch long. It has the appearance of being coated with mildew or milkish-colored substance. They most generally put in their first appearance the latter part of May, and are found on the under side or shady part of the leaves, curled up like a snail. Their presence is easily detected, as the foliage will be eaten full of holes. The best way to get rid of this pest is by a liberal dose of Paris green. One feed is generally enough. The sawfly is also a lover of raspberry foliage.

The Strawberry Crown Borer

This is a troublesome insect if once it gets into a bed of plants. The larva is a white footless grub with a white head. It is one-fifth of an inch long and lives in the crown of the plants. The adult insect is a dark colored snout-beetle and is one-fifth of an inch long. They can not fly, and the only way they can be transferred from one field to another is through affected plants. Avoid setting your beds where old plants have been turned under, and never take plants from an infested field.

The Strawberry Crown Miner

The miner is a caterpillar, small in size and reddish in color, and its habit is to bore the strawberry crown, making irregular channels through it in all directions. Early summer finds it full grown, when it passes into a chrysalis state, emerging two or three weeks later as a small, dark gray moth. As yet no remedy has been discovered for the miner. Badly infested fields should be burned over and turned under either in the fall or early spring.

Two Minor Pests

There also are the tarnish plant bug and strawberry weevil. You never will be troubled with these if you will see to it that your vines are carefully mowed off after the crop is gathered and burned. Be sure that the straw or other mulching is loosened up so that it will make a quick, hot fire. This is the most effective remedy known, and it is a fine preventive, freeing the fields for the following season.

Preventives and Remedies

The remedy for leaf-eating insects is Paris green, which should be prepared as follows: Take one pound of unslaked lime; put over this seven ounces of Paris green, and pour over this two gallons of hot water; add to this water enough to make fifty gallons.

GET THE
BEST MARKET PRICES

FOR YOUR FRUIT BY
PUTTING THEM UP
ATTRACTIVELY,
TO DO THIS

YOU NEED
GOOD

Sabelb

WE
MAKE
THEM

WE CARRY IN STOCK
LABELS FOR APPLE-
PRUNE & CHERRY BOXES
BERRY CRATES, ETC., ETC.

Schmidt Lithograph Co.

E. SHELLEY MORGAN, Mgr.
408 WELLS FARGO BLDG.
PORTLAND, OREGON

BURBANK & AMOS

REAL ESTATE

Irrigated Fruit Lands in the Famous Vale of Cashmere
The Garden Spot of Washington

CASHMERE, WASHINGTON

**THE COMING
FRUIT REGION**

*From the White Salmon to the Klickitat, opposite
to Hood River, Washington Side of the Columbia*

Elevation is right, soil is the deepest and best, climate perfect, market situation ideal by the great North Bank road and the Columbia. Lyle is the coming fruit belt. Watch this region for the next two years. Prices the very lowest. Get in for the certain raise. \$1000 invested now will bring larger returns than any other investment you can make in fruit lands. I have large or small tracts, some exceedingly desirable. Come and see me, or write and tell me what you want.

GEO. A. SNIDER, Lyle, Wash.

WHEN WRITING ADVERTISERS MENTION BETTER FRUIT



WHEN WRITING ADVERTISERS MENTION BETTER FRUIT

D. McDONALD

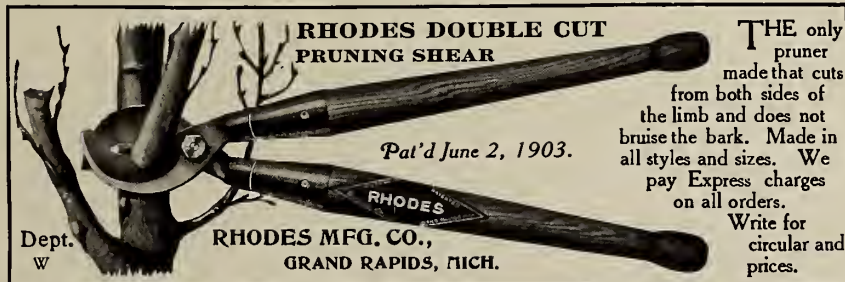
HOOD RIVER, OREGON

Headquarters for
FARMING AND ORCHARD**TOOLS**Disc Harrow Extension for
Orchard Cultivation a SpecialtyWhen you want any kind of Orchard Tools
come to me and get the BEST**W. F. LARAWAY**

DOCTOR OF OPHTHALMOLOGY

EYES
TESTEDLENSES
GROUND

Over 30 Years' Experience

TELESCOPES, FIELD GLASSES
MAGNIFIERS TO EXAMINE SCALEHOOD RIVER, OREGON
AND GLENWOOD, IOWA**TOKAYS TOKAYS TOKAYS**One-half million Tokay Grape vines and large stock of other varieties. Also Logan, Phenomenal, Himalaya Giant, Mammoth Blackberries, Crimson Winter Rhubarb and General Nursery Stock. Agents wanted **CHICO NURSERY CO., Chico, Cal.**


RHODES DOUBLE CUT PRUNING SHEAR

Pat'd June 2, 1903.

Dept. W

RHODES MFG. CO., GRAND RAPIDS, MICH.

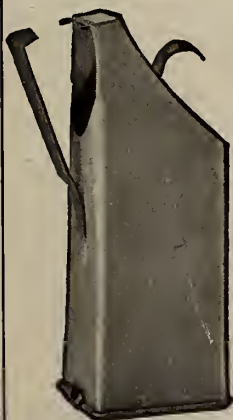
THE only pruner made that cuts from both sides of the limb and does not bruise the bark. Made in all styles and sizes. We pay Express charges on all orders. Write for circular and prices.

Walnut and Fruit Land

ALL WELL WATERED

RIVER VIEW

Some of the very best nut and fruit lands to be had at reasonable rates. Living springs of ice cold water. Miles of River View. Come or write for information

W. D. MOREHOUSE, UNDERWOOD, WASHINGTON

Save Your Fruit and Future Buds by Using

West's Cherry Picker

Fruit picked with this machine keeps better, sells better and is untouched by the hand from tree to basket. Price \$1 each, by mail, post paid. Circulars on request

EASTWOOD NURSERIES

Sole Agents for Oregon, Washington, California Gresham, Oregon

For fungous growths, such as mildew, blight and rust, start spraying at first sight with Bordeaux mixture, which is prepared as follows: Four pounds lime slaked in four gallons of hot water; four pounds of blue vitriol dissolved in four gallons of water; to this add sufficient water to make one barrel of forty gallons.

Where both fungous growths and insect pests trouble, the Paris green may be added to the Bordeaux mixture and applied at one spraying.

Much importance attaches to the method of applying these remedies. Some people practice a false economy by neglecting to get the proper conveniences for this work. They apply these mixtures with a broom, or with a sprinkling pot. In most cases this work is entirely lost, as far as any benefits being derived from it are concerned. These mixtures, to be effective, must be applied in a fine spray and with as much force as possible, and the only way this may be done is by the use of some one of the modern spraying outfits. These are made in all sizes, so that every strawberry grower may accommodate himself and his necessities by selecting one which best suits him.

After the fruit is all picked, mow off the vines, and when they are perfectly dry set fire to it on the side from which the wind is coming and let it sweep over the entire bed.

Inasmuch as the burning over of the fields is so important and so destructive of insects, larvae and fungous spores, we know it will pay every one having a strawberry bed to see that these instructions are carried out. Complete and plain instructions will be given before the time arrives for the work to be done.

And don't forget the primary importance of clean and thorough cultivation. There are fewer insects to combat in the strawberry field than any other. Let each grower see to it that these encouraging conditions are maintained in his own field.

In order to assist you along these lines we suggest some "don'ts."

Don't let a bed of strawberry plants run wild after you have fruited it for several years. Burn it off clean.

Don't take your plants from an old fruiting bed, as the insects and fungous spores are bound to go with the plants.

Don't allow plants in your fruiting beds to mat thickly.

Don't allow weeds and grass to have their home among your plants.

Don't kill a lady-bug, spider, quail or bird of any kind. These are all your best friends, not your enemies. If the birds do eat a few berries they are only collecting their own wages thereby.

Don't plow an old, run out bed of plants under and reset it before some leguminous grain or vegetable crop has been grown upon it, unless the old plants were in perfectly healthy condition. Even then see that the bed is burned over before being turned under.

Now, don't Don't, but do Do, and everything will come out all right.



AS a berry shipping point Puyallup, Washington, leads the Northwest. During the season it ships thousands of crates of strawberries, blackberries and raspberries in addition to having one of the largest canning industries for small fruits on the coast. Most of the fields under cultivation are small and in this way permit of the highest cultivation.

OLDEST LIVERY COMPANY IN
THE VALLEY

TRANSFER & LIVERY CO.

Special Attention to Commercial
Men, Camping & Fishing Parties

TELEPHONE MAIN 131

HOOD RIVER, OREGON

ORDER YOUR

Fruit and Berry BOXES

From

UNION BOX &
LUMBER CO.

Foot of
Montgomery Street Portland, Oregon

VEHICLES AND AGRICULTURAL IMPLEMENTS

THE BEST OF
ORCHARD AND GARDEN TOOLS
A SPECIALTY

J. R. NICKELSEN
HOOD RIVER, OREGON

A Trip to the Coast

Is incomplete without a ride
on the

Mt. Hood Railroad

By Mountain Streams, Apple Orchards
Virgin Forests and Snow
Capped Peaks

Connects with O. R. & N.
at Hood River, Oregon

CAPITAL \$50,000

SURPLUS \$15,000

FIRST NATIONAL BANK

HOOD RIVER, OREGON

F. S. STANLEY, *President*
E. L. SMITH, *Vice President*
E. O. BLANCHARD, *Cashier*
V. C. BROCK, *Assistant Cashier*

ASSETS OVER \$325,000

Savings Bank in connection

THE DALLES BOX COMPANY

Manufacturers of all kinds
of boxes, fruit boxes and
berry crates. *Car lots a specialty*

CORRESPONDENCE
SOLICITED

P. O. Box 21

Factory: THE DALLES, OREGON

ROGUE RIVER VALLEY

*Famous for its APPLES, PEARS, PEACHES,
GRAPES, MELONS AND CLIMATE*
THE natural home of the Spitzenberg and New-
town apples. Rogue River Pears have led the
United States for the past three years in the highest
price in the New York market. No peaches of the
South excel those of Rogue River, and trees are
healthy. Grapes perfection in color and flavor and
the best of shippers, and growers have more orders
than they can fill. Rogue River cantaloupes, water-
melons and cassabas, none better and big money
makers. The Grants Pass Fruit Growers Union gets
the highest price for fruit, and the Southern Pacific
gives terminal rates on shipments East. Climate
the perfect medium between arid California and
webfoot Oregon. No storms or winds to injure
fruit crop. Almonds and figs ripen perfectly and
palm grow in the yards. Land yet cheap but will
double in two years. Now \$5 to \$100 an acre in
small and large tracts, some on easy payments.
American community and good schools, rural mails,
telephones, etc. Full information by addressing
CHARLES MESERVE, Grants Pass, Oregon,
Seller of Real Estate in All Parts of Rogue River
Valley. References by permission: Grants Pass
Fruitgrowers' Union, First National Bank of
Southern Oregon.

Pearson's Cement Coated Nails

Are the best for fruit boxes. They
are imitated because we advertise them
and our product has an established
reputation. The imitator has *no repu-
tation* to sustain. *We have.* You
never see an advertisement of the
imitations. They are *always offered
on our reputation.* It stands to reason
that our nails are the best, otherwise
we could not afford to advertise them.
When you ask for PEARSON'S nails
see that you get them. *Don't be
imposed upon.*

J. C. PEARSON CO.

A. C. RULOFSON CO.

Pacific Coast Agents

315-321 Monadnock Bldg., San Francisco, California

Things we are Agents for

KNOX HATS

ALFRED BENJAMIN & CO.'S
CLOTHING

DR. JAEGER UNDERWEAR

DR. DEIMEL LINEN MESH
UNDERWEAR

DENT'S & FOWNES' GLOVES

BUFFUM & PENDLETON

311 Morrison Street, Portland, Oregon

St. Helens Hall

Portland, Oregon

A GIRLS' SCHOOL OF
THE HIGHEST CLASS

CORPS OF TEACHERS, LOCATION,
BUILDING, EQUIPMENT THE BEST

Send For Catalogue

BLACK Tobacco LEAF Extract KILLS APHIS

Balfour, Guthrie
& Co. WESTERN AGENTS
PORTLAND, OREGON

FIRST NATIONAL BANK

PORTLAND, OREGON

CAPITAL AND SURPLUS
\$1,500,000.00

No interest paid on accounts

A. L. MILLS President
J. W. NEWKIRK Cashier
W. C. ALVORD Asst. Cashier
B. F. STEVENS 2d Asst. Cashier

Ready for Business
With a complete stock of
Fresh and Pure Drugs
Also fine stock of candies

ALL MATERIALS
FOR MAKING SPRAY

Nichols Pharmacy
HOOD RIVER, OREGON

Perfect Fruit

Delightful Climate, Beautiful Scenery

Seventy-two miles east of Portland, six miles east of Hood River, the eastern portion of Hood River fruit district; 15,000 to 20,000 acres fruit land; only 1000 in cultivation, prices \$20 to \$1000 per acre. Produces \$250 to \$500 per acre annually when in full bearing. A climate that is perfect; a soil that is right, and no irrigation gives us fruit that is unsurpassable.

Important—Our apples can be kept all winter and then shipped to any market in the world and still be in good condition. This gives us a market that is never overstocked, regardless of how much is raised in irrigated countries. Many opportunities for good investments. Call on or address

H. E. WAITE, Mosier, Oregon

HEADQUARTERS FOR CENTURY SPRAY PUMPS

Hose, Nozzles, First-
class Plumbing Supplies

C. F. SUMNER

Successor to Norton & Smith
HOOD RIVER, OREGON

Apple Land

On White Salmon Side
of the Columbia River

A snap, must sell at once

Write me

H. G. McGOWAN

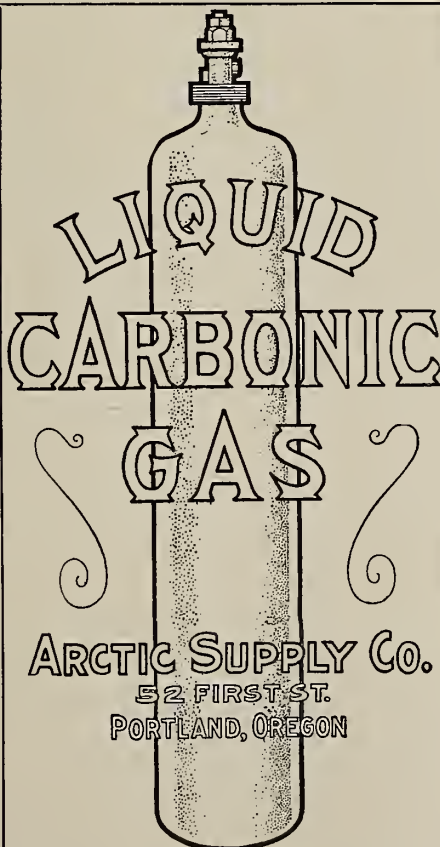
201-203 Front St. PORTLAND, OREGON

STRAWBERRY PLANTS

That pay to plant are the kind we grow

We have for this season the largest acreage of plants we ever grew. We have had unusually favorable weather and never grew such a fine lot of strawberry plants. Our supply consists of at least ten million plants of all the leading varieties both old and new. We have shipped a large number of plants the past two seasons to the Northwestern States that have always given satisfaction. We are prepared to fill orders for any amount. We also grow Raspberry, Blackberry, Dewberry and all other small fruit plants, the quality of which is unsurpassed. If you want plants now, write for prices, stating your wants. Our new catalog will be ready to mail about January 1. It is FREE, write for a copy now.

F. W. DIXON, Holton, Kansas



Saves the labor of one man in
praying and does better works

The PARIS FAIR

Hood River's Largest and Best Store

DRY GOODS
SHOES, CLOTHING

We are offering some extra specials in
our Clothing Department. Ask to see them

Try a pair of American Lady
\$3 & \$3.50 Shoes or American
Gentlemen \$3.50 & \$4

Monarch Steel Stump Puller

Pulls stumps
seven feet in
diameter



Guaranteed
500 horse
power

The only steel stump puller
factory in the United States
making their own steel stump
puller castings. The strongest
and lightest machine made

Catalogue and discounts, address
ZIMMERMAN STEEL CO.

Lone Tree, Iowa

MOSIER

Also called East Hood River

FRUIT LANDS

In large or small tracts. Some very good land at low prices at present. Good growing community. Six miles east of Hood River. Also homesteads and relinquishments. Parties wishing to buy will do well to write or see

GEO. CHAMBERLAIN
MOSIER, OREGON

THE ROGUE RIVER VALLEY

THE CREAM OF CREATION

Has again demonstrated by the great crop of fruit now set for 1907 that this is the surest in its crop production of any part of America. This fact makes this district look good to the trained horticulturists of all other sections of the Northwest. When it is conceded that orchards approaching the bearing period here are held at less than one-half the figures demanded for similar lands in other districts yielding less net profits than here, it should impress the readers of "Better Fruit" that now is the time to invest in this favored valley, with its regular crops and famous good climate. The homeseeker will get the benefit of more than twenty years' experience in the fruit business by dealing with the

ROGUE RIVER LAND COMPANY
EXHIBIT BUILDING MEDFORD, OREGON

DOUBLE YOUR MONEY

Hood River Bargain

TWENTY ACRES—Finest kind of soil; lies well, on main county road, only 3½ miles from town; 14 acres in orchard, as follows: 745 Newtowns and Spitzenbergs, 50 Jonathans, 25 Arkansas Blacks, 80 cherries, 80 pears and 20 peaches; 400 of these begin bearing this year. Small house, barn, sheds and good cold storage cellar with cement floor. Well fenced and, best of all, there is a large spring, which gives plenty of FREE WATER FOR IRRIGATING THE ENTIRE TWENTY. Unimproved land two and three miles farther out sells for \$300 per acre, and you have to buy your water. This can be had for \$6000—\$300 per acre. You can double your money on this in two years. It sounds good, but it looks better.

Devlin & Firebaugh
508-9 Sweetland Bldg. PORTLAND, OREGON

The Following Comparison Should Satisfy any Horticultural Investor

THAT THIS IS THE BEST PLACE ON EARTH TO PUT HIS MONEY

The owner of a forty-five acre vineyard near Grants Pass has a standing offer of \$1000 per acre; but will not take \$2500 per acre, as his annual returns pay a large interest on that valuation

Raw land equally desirable, adjacent to this vineyard can now be bought for \$25 per acre. If planted to Tokay Grapes in six years this land will be equally as valuable

THIS WOULD MEAN AN INCREASE OF 10,000 PER CENT

For Further Information Address

THE BEST-FULLER REALTY COMPANY
Successor to
The W. B. Sherman Realty Company GRANTS PASS, OREGON

If you want to know about OREGON

SUBSCRIBE FOR

The Chamber of Commerce Bulletin
A Monthly Commercial Publication of Merit

Official organ of The Portland Chamber of Commerce, the leading and most influential commercial body in the Pacific Northwest

SUBSCRIBE NOW, \$1.00 PER YEAR

ADDRESS

The Chamber of Commerce Bulletin

DAVID N. MOESSOHN, Publisher

Suite 616

Chamber of Commerce Bldg. Portland, Oregon

BERRY BOXES CRATES, ETC.

Write for Prices

Please State Quantities and Sizes Wanted

J. W. BUTZER 190 Front Street
PORTLAND, OREGON

YAKIMA VALLEY WASHINGTON

We sell improved and unimproved fruit land in the best part of the Yakima Valley. Also "Hanford" land on the Columbia River. For descriptive literature and full information write

YAKIMA REAL ESTATE CO.

Box A186

NORTH YAKIMA, WASHINGTON

A Fruit Home in Southern Washington

Take advantage of the low rates to the Pacific Coast and come to White Salmon, Washington. The finest fruit country in the world. Our Newtown and Spitzenberg Apples command the highest prices in the world's markets. Our Strawberries are the earliest in the northwest. The very best fruit land \$25 per acre. Ten acres make a comfortable home and a good living for any family. Located across the Columbia river from Hood River, Oregon.

WRITE US FOR DESCRIPTIVE MATTER AND PRICES

Estes Realty & Investment Company WHITE SALMON
WASHINGTON

LESLIE BUTLER, President
J. N. TEAL, Vice President
TRUMAN BUTLER, Cashier

Established 1900
Incorporated 1905

Butler Banking Company

HOOD RIVER, OREGON

Capital Fully Paid \$50,000

Deposits over \$400,000

We give special attention to GOOD FARM LOANS

If you have money to loan we will find you good Real Estate security or if you want to borrow we can place your application in good hands and we make no charge for this service

The Managing Officers of this Bank have been residents of Wasco County for more than twenty-five years

A REPUTATION TO SUSTAIN

VINELAND NURSERIES COMPANY

PROPAGATORS OF

Reliable Nursery Stock

ALL STOCK BUDED FROM BEARING TREES
FRUIT AND ORNAMENTAL

CLARKSTON, WASHINGTON

LADD & TILTON BANK

ESTABLISHED 1859
PORTLAND, OREGON

Capital Fully Paid \$1,000,000.00

Surplus and Undivided Profits \$400,000

W. M. Ladd, President
Edward Cookingham, Vice President
W. H. Dunkley, Cashier

Officers:
R. S. Howard, Jr., Assistant Cashier
J. W. Ladd, Assistant Cashier
Walter M. Cook, Assistant Cashier

INTEREST PAID ON TIME DEPOSITS AND SAVINGS ACCOUNTS

Accounts of banks, firms, corporations and individuals solicited. We are prepared to furnish depositors every facility consistent with good banking

75,000

SPITZENBERGS

Of grafts and buds taken from the famous Stewart orchard, President of Washington State Horticultural Society.

SUNNYSIDE NURSERY
SUNNYSIDE, WASHINGTON

CHAS. G. PRATT, President

R. W. PRATT, Cashier

J. H. OSBORNE, Vice President

Hood River Banking & Trust Co.

HOOD RIVER, OREGON

We Own and Occupy the Finest Equipped and Most Modern Bank in Wasco County

A General Banking and Trust Business Transacted

Safe Deposit Boxes Interest paid on Time and Savings Deposits

Make Our Bank Your Headquarters When in Hood River

Correspondence Invited

Your Patronage Solicited

"THE OLD RELIABLE"

Albany Nurseries

INCORPORATED

ALBANY, OREGON

We have a complete stock for the coming season. Send in your orders early

Catalogue Free Salesmen Wanted

Gather your cherries with the only successful

PATENT PICKER

Having received a large consignment of these pickers by freight from Iowa I am prepared to deliver on receipt of express or postoffice money order for number required. Price, duty and postpaid, two for \$1.50; twelve for \$7.50

NOTICE TO BRITISH COLUMBIANS

You can gather them much faster; the cherry is not touched by the hand nor bruised. The long, unsightly stem is severed and most of it is left on the tree; hence the fruit looks much more attractive in the box, and is nicer for home use or for market. It also keeps much better and the fruit buds for the next year's crop are not injured. The picker is held in one hand and is operated rapidly and easily, and the other hand is left free to bend the limbs or hold, or anything needed. The device consists of two steel jaws hinged together at the lower end and at the other are two shear-like clipping edges. One of these jaws is movable under the thumb and the other is firmly riveted to the receptacle, which holds about a pint. The device is kept in position by leather keeps for the thumb on one jaw, and for the fingers on the other. Every cherry that is clipped goes into the cup and is secured. The device was thoroughly tested last season, and met with a hearty welcome as filling a long felt need.

JAS. JOHNSTONE, Box 198, Nelson, British Columbia



Yakima Valley Nursery, Inc.

W. D. INGALLS, Manager

Oldest Yakima Nursery
Largest stock. Second to none in the State

North Yakima, Washington

R. F. D. No. 4

1,000,000 CLARK SEEDLING STRAWBERRY PLANTS

FOR THIS FALL AND NEXT SPRING DELIVERY. Address A. WHITEHEAD, Hood River, Oregon

W. H. Dryer

W. W. Bollam

Dryer, Bollam & Co.

Successors to

DRYER, O'MALLEY & CO.

General
Commission
Merchants

128 FRONT STREET
PORTLAND, OREGON

TELEPHONE MAIN 2348

AGENTS WANTED

Can you sell goods? If so we need you. Complete outfit free; cash weekly. Write for choice of territory

CAPITAL CITY NURSERY COMPANY
SALEM, OREGON

IF YOU WANT TO
MARKET YOUR

FRUIT

RIGHT, ALWAYS SHIP TO

W. B. Glafke Co.

WHOLESALE FRUITS
AND PRODUCE

108-110 Front Street
PORTLAND, OREGON

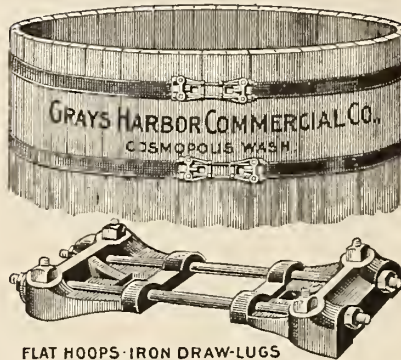
CHERRY GROWERS, YOUR ATTENTION

Royal Ann, Bing and Lambert Trees and also a complete assortment of Spitzenbergs, Newtowns and other fruit trees

A. HOLODAY

MONTE VISTA NURSERY

SCAPPOOSE, OREGON



FLAT HOOPS - IRON DRAW-LUGS

DO YOU USE TANKS FOR ANY PURPOSE

If so, you are not justified in buying until you have seen our catalogue. Write us today for delivered price on your requirements

Grays Harbor Commercial Co.
ALASKA BLDG. SEATTLE, WASH.

OUR HUNDRED PAGE COMPLETE CATALOG

TELLS ALL ABOUT OUR

SEEDS, TREES, PLANTS, BUSHES,
POULTRY AND BEE SUPPLIES, SPRAYS,
SPRAY PUMPS, FERTILIZERS, ETC.

ADDRESS

Portland Seed Co., Cor. Front @ Yamhill,
Portland, Oregon.

THE VROOMAN PURE STRAIN Franquette Walnut



First Class Salesmen Wanted

Plant no other. If you want to know WHY, it's because there's no other variety that possesses so many GOOD QUALITIES. Don't simply doubt—investigate for yourself. We have a nice stock of one-year-old trees of this variety and strain for immediate shipment. These trees are all grown from specially selected nuts, grown on GRAFTED TREES. We not only recommend this Vrooman Pure Strain Franquette Walnut, but GUARANTEE it to be just as represented. Accept no variety that is labeled "just as good," for there is none. Remember, we are sole propagators of this particular line of Walnut trees. Ask for free literature describing it. Inquiries cheerfully answered

OREGON NURSERY COMPANY, SALEM, OREGON

WHEN WRITING ADVERTISERS MENTION BETTER FRUIT

THE CIDER BUSINESS IS IT PROFITABLE?

Comparatively no effort has been made either by private enterprise or through the agency of state or federal governments to collect reliable data on cider making. As a result the sources of information on the subject are meagre. Cider making from the standpoint of profitable industry has been regarded by most fruit growers as of less relative importance than poultry raising by the average farmer. It is a fact, however, as a casual investigation will show, that cider making is an industry of great possibilities for profitable investment. Cider of itself is a staple commodity, universally desired. It embodies food elements of the highest nutrient value and in form most easily digested and assimilated by the human body. It contains elements absolutely essential to the proper and healthful functions of various organs of the body. Some of the most eminent physicians and scientists of the United States and Europe have unqualifiedly recommended cider as a healthful food for the strong and a strengthening and invigorating tonic for the weak.

What disposition shall be made of unmarketable apples is a question that annually presents itself to most every American fruit grower. With all the skillful culture and attention possible to grow better fruit, there will always be some apples not equal to the market requirements, and in the mind of each orchardist there is a more or less uncrystallized notion that some use should be made of the "culls." If the facts could be definitely ascertained they would show, no doubt, that hundreds of bushels of apples go to waste each year in every community simply because there is no convenient means of preserving them. About 95 per cent of ripe apples is juice, and by separating the juice from the skin and other hard cellular tissue you have in the juice the only part of the apple that is of real value; the other portion, the pomace, may be thrown away. By using a modern hydraulic press, practically all the juice is obtained, and there is small chance of wasting any of the apple that is of use to man.

Every apple-growing community should have a cider factory; no other business will show such large returns on capital invested and labor required. One of the pioneers in the cider industry writes that a knowledge of its possibilities "suggested to us an absolutely new enterprise—a new industry, involving immense possibilities for personal profit and public usefulness, an unoccupied industrial field in the United States."

There are two general plans of working the cider business: (1) Operating a cider press as a merchant mill; (2) Operating a cider press as a custom mill. A merchant mill does no custom work. The owner works up his own apples, and buys apples in quantities to meet the demands of his trade. In such a mill the cider is prepared for the consumer in form of vinegar, cider beverages, cider syrup and cider jelly.

A Mt. Gilead hydraulic press will produce from one bushel of apples of average quality four and a half gallons of cider. Apples suitable for making cider can be purchased in any year of abundant crop from 10 to 15 cents per bushel. The cost of making cider on a hydraulic press, taking into account labor, interest on investment and all items that properly belong to cost, is indefinitely small, but for the purpose of illustration may be estimated at one-fifth cent per gallon. At \$1.50 each you can buy whisky barrels of fifty gallon capacity. There is comparatively no other expense in the manufacture of either drinking cider or vinegar—heat and air do the work. Cider vinegar is now in great demand at 14 cents per gallon wholesale, and 20 cents retail. Cider beverages are now selling in carload lots at 65 cents per gallon, and the supply is wholly inadequate to meet the demand. To put the business in plain terms:

Cost of apples (eleven bushels) for one barrel of cider.....	\$ 1.65
Cost of making fifty gallons (one barrel) of cider.....	.10
Cost of one barrel.....	1.50

Total cost	\$ 3.25
------------------	---------

Fifty gallons of vinegar, at 14 cents (wholesale).....	\$ 7.00
Cost	3.25

Profit	\$ 3.75
--------------	---------

Fifty gallons of vinegar, at 20 cents (retail).....	\$10.00
Cost	3.25

Profit	\$ 6.75
--------------	---------

If you retain the barrel (\$1.50) the profit is.....	8.25
--	------

Fifty gallons of cider beverage at 65 cents.....	\$32.50
Add to cost \$1 for yeast cultures and \$6 for labor, barrel and other expenses.....	10.25

Profit	\$22.25
--------------	---------

Investigation will convince any one that the profits on cider manufactured in forms of syrups and jellies with a steam evaporator are equally large. The net profit of a custom mill depends very largely on the size of press used. An average cider-making season in apple-growing communities covers about fifty working days. Custom work varies from 1 cent to 3 cents per gallon, the usual prices being 1½ and 2 cents per gallon.

A No. 8 Mt. Gilead hydraulic press has an average capacity of seventy barrels, or 2205 gallons of cider per day.

2205 gallons, at 1½ cents.....	\$ 33.07
Labor and cost of power.....	5.00

Profit	\$ 28.07
--------------	----------

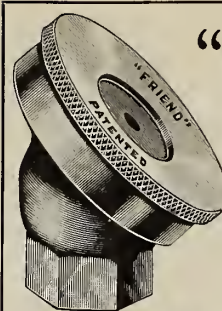
Fifty days, at \$28.07—Profit for season.....	\$1403.50
---	-----------

At 2 cents per gallon additional.....	551.25
---------------------------------------	--------

Profit for season.....	\$1954.75
------------------------	-----------

A combination of the custom mill and merchant mill plan is the ideal method of operating the cider business.

The Hydraulic Press Manufacturing Company of Mt. Gilead, Ohio, manufacture the original hydraulic presses in all styles and sizes, hand or power, ranging from 25 to 400 barrels per day, and can supply you with a press that will save you many dollars. The Mt. Gilead hydraulic presses are sold under a positive guarantee to do all they claim for them. It means much to the fruit grower and shows honest, straightforward dealing. They also manufacture steam evaporators, apple-butter cookers, and all appliances used in the cider industry. Write them for catalog No. 60 and any information desired; they will be glad to answer your questions if you mention this paper.



"FRIEND" ANGLE

Special Price to Agents

"FRIEND" MFG. CO.
GASPORT, NEW YORK

Manufacturers of the World's Best Hand and Power Spraying Outfits, the "Friend"

A REAL
"Friend"

The very latest Spray Nozzle. Sprays up under the leaves and down into the calyx. Price \$1.50, postpaid. Money cheerfully refunded if not entirely satisfactory. Reference, "Better Fruit."

ASHLAND

Largest city in the Rogue River Valley and climatic capital of Southern Oregon. Ideal home town. Unexcelled as a fruit region. Hill and valley fruit lands offer splendid inducements to intelligent and industrious fruit growers.

FOR FURTHER INFORMATION ADDRESS

**SECRETARY ASHLAND
COMMERCIAL CLUB**

Ashland, Oregon



When you get to Hood River
stop at the

MT. HOOD HOTEL

Trains stop directly in front of
Hotel. ☞ Bus meets all boats

Automobile Service Daily, for
Cloud Cap Inn During Months
of July, August and September

LOW RATES EAST

Will be made this season by the

OREGON RAILROAD
& NAVIGATION CO.

AND

SOUTHERN PACIFIC

LINES IN OREGON

From Portland, Oregon, as follows:

TO	BOTH WAYS THROUGH PORTLAND	ONE WAY VIA CALIFORNIA
Chicago . .	\$72.50	\$87.50
St. Louis . .	67.50	82.50
St. Paul . .	63.15	81.75
Omaha . . .	60.00	75.00
Kansas City .	60.00	75.00

TICKETS WILL BE ON SALE

June 5, 6, 19, 20 July 6, 7, 22, 23
August 6, 7, 21, 22

Good for return in ninety days with stop-
over privileges at pleasure within limits

REMEMBER THE DATES

For any further information,
call on any agent or write to

WM. McMURRAY

General Passenger Agent

PORTLAND, OREGON

THE OREGON COUNTRYMAN

Published Monthly by

The Agricultural and Domestic Science and Art
Students of the Oregon Agricultural College

Each issue will contain articles dealing with various phases of Animal Husbandry, Agronomy, Bacteriology, Botany, Chemistry, Domestic Science, Domestic Art, Entomology, Forestry, Horticulture, Plant Diseases, Poultry Husbandry, etc. A Question and Answers Department, conducted under the supervision of the faculty, in which readers may receive replies to questions dealing with any of the above mentioned subjects free of charge. There will be other papers by men and women who are leaders in their respective lines of endeavor. Agricultural Extension and Nature Study will receive due attention

Send Ten Cents Coin or Stamps for Sample Copy

First issue out June 15, second issue September 15
After latter date published monthly throughout the year

TEN CENTS A COPY ONE DOLLAR A YEAR

Address THE OREGON COUNTRYMAN, Corvallis, Oregon

Niagara Lime and Sulphur Solution

For San Jose Scale, and Scale Insects or Bark Lice, Aphis and Woolly Aphis, Leaf Curl of Peach, Moss, Mildew and all pests for which Lime and Sulphur has been found a remedy. Niagara is the only spray made which is tested and has that test marked on every barrel. It is a perfectly made, clear, highly concentrated liquid, capable of being diluted with eleven times its quantity of water for San Jose Scale. The following are a few of the many who are using or handling Niagara because it is the best:

J. A. Perry, Rogue River Fruit Growers' Union, Medford, Oregon; Lane County Fruit and Vegetable Growers' Association, Eugene, Oregon; Stranahan & Clark, Hood River, Oregon; Chase & Kaife, Salem, Oregon; Wenatchee Produce Company, Wenatchee, Washington; Yakima Hardware Company, North Yakima, Washington; Yakima Valley Fruit and Produce Growers' Association, Granger, Washington; Zillah Fruit Growers' Association, Toppenish, Washington; Blalock Fruit Company, Walla Walla, Washington; Malheur Mercantile Company, Ontario, Oregon; British Columbia Fruit Growers' Association, W. J. Brandrith, Manager, Ladner, British Columbia; Western Hardware and Implement Company, Lewiston, Idaho; Milton Fruit Growers' Union, Milton, Oregon; A. E. Crosby, Druggist, The Dalles, Oregon.

OREGON SPRAY & GAS COMPANY

Portland, Oregon

Ideal Fruit & Nursery Co.

We have for fall and spring delivery a full line of absolutely true to name and free from all pests all the leading varieties of

Apples, Pears, Cherries, Prunes,
Plums, & Small Fruits of all Kinds

We invite inspection at any time
Prices furnished on application

Guignard & Rosiger, Hood River, Oregon

Buy and Try

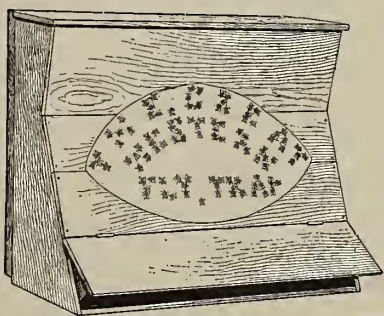
WHITE RIVER FLOUR

MAKES

WHITER, LIGHTER BREAD

W. H. Grasser of Clarkston, Washington, is putting the greatest

INSECT TRAP



On the market that has ever been known. It will successfully catch the pestful yellow jackets, codling moth, army worm flies, nearly all insects that inhabit the orchard as well as the common house fly. Just bait the trap with crushed fruit and set it on a stump or dry-goods box in the orchard and you will get them. This trap has won first prize wherever shown. You will be surprised to see the amount and kinds of insects this trap will catch

Price Only \$3.00

The Hood River Electric Light, Power & Water Co.

DOING A GENERAL ELECTRIC
LIGHT AND POWER BUSINESS

TWENTY-FOUR HOUR SERVICE

City Water Works System for Domestic and Municipal Use.
Are prepared to furnish 3000 Horse Power, either
Electric or Water, at Reasonable Rates

General Office, HOOD RIVER, OREGON

APPLE GROWERS

Who wish to produce an apple which will keep two months longer than apples grown along the Columbia River, come to Baker City and investigate the famous Sunnyslope bench lands. Write for particulars to the

BAKER IRRIGATION CO.
BAKER CITY, OREGON

DO YOU LIKE FRUIT? Apples, Cherries, Berries,
Peaches, Prunes, and Melons and all kinds of delicious fruit?

Buy Land in Payette Valley IDAHO

"Make Hay Where the Sun Shines." The best sugar beet land in the world. Three crops of alfalfa each year, producing from seven to nine tons per acre

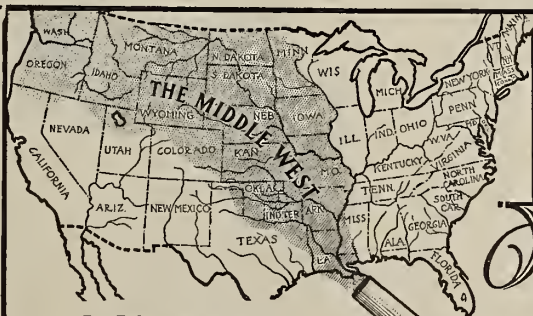
NEW PLYMOUTH LAND & COLONIZATION CO., Ltd.

C. E. BRAINARD
President and Manager

Payette, Idaho

FRUIT GROWERS

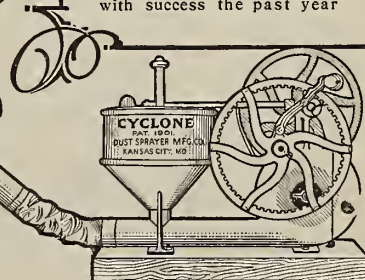
Are you spraying? Getting best results? Have you tried the Dust method? If not you will do well to heed the opinion of those about you. This is past the experimental stage



For Full Information and Catalogue
Write to

Morgan & McKaig
Distributors for the Northwest
NORTH YAKIMA, WASHINGTON

Many hundreds of progressive and successful fruit growers in all parts of the world and nearly every fruit growing district in Washington, Oregon, Idaho and British Columbia have used the Dust Sprayer with success the past year





HELM APPLE ORCHARD

We make a special feature of
apple and pear land

Southern Oregon Investment Co.

Harry Silver

J. S. Bailey

ASHLAND, OREGON

Our Newtown Pippins are fine quality,
keep better, and bring the highest price.
Pear orchard net yield \$500 per acre.
Land finely located \$30 per acre and
upward.



GORE PEAR ORCHARD

SLOCOM'S BOOK STORE

Office Supplies
Stationery

Ledgers, Journals, Time Books
Memorandum Books

Rubber Stamps

Souvenir Postals

Picture Frames

Stanley-Smith Lumber Co.

WHOLESALE AND RETAIL

LUMBER

Lath, Shingles, Wood, Etc.

Hood River, Oregon

Stranahan & Clark

DEALERS IN

Commercial Fertilizers
Land Plaster, Lime
Plaster Paris, Cement
Building Plasters
Hood River, Oregon

Hood River Nurseries

Have for the coming season a very complete line of

NURSERY STOCK

Newtown & Spitzenberg propagated from
selected bearing trees. Make no mistake
but start your orchard right. Plant gener-
ation trees. Hood River (Clark Seedling)
strawberry plants in quantities to suit.

SEND FOR PRICES

Rawson & Stanton, Hood River, Oregon

OKANOOGAN

THE COUNTRY OF OPPORTUNITY

Where the color and keeping qualities of the fruits raised
cannot be excelled anywhere in the world. **GOVERN-
MENT IRRIGATION** is the best irrigation system pos-
sible. We have a large list of excess lands, under the
Government project, that must be sold, and the prices and
terms are in reach of the man of moderate means.
OKANOOGAN FRUITS won a gold medal at the Lewis
and Clark Exposition held at Portland, Oregon, in 1905.
We also took nineteen prizes out of twenty-three varie-
ties of fruit exhibited at Spokane Interstate Fair in 1907.

For particulars and free booklet address

STORCH, PRATT & FORSYTH
OKANOOGAN, WASHINGTON

PINE BOXES

*BRIGHT, LIGHT FRUIT BOXES FROM
THE FAMOUS KLICKITAT PINE*

Our new plant can fill your orders promptly
and satisfactorily and save you money.
Send your specifications and ask for prices

Klickitat Pine Lumber Co.

Portland Office:
26 Concord Building

GOLDENDALE, WASH.

PRINTING FOR FRUIT GROWERS

Our facilities for the prompt handling of out-of-
town orders, together with the high-class service we
render, makes this a good place to buy Printing.
Better Fruit is designed and printed in our estab-
lishment. Long Distance Telephone Main 165.

F. W. BALTES & CO.

FIRST AND OAK PORTLAND, OREGON

A HOOD RIVER APPLE ORCHARD IS A GOLD MINE

Netting from five hundred dollars to nine hundred dollars per acre annually. Do not hesitate because your capital is small. Let us show you how you can start on a small scale and achieve absolute independence in a few years

The Jacobs-Stine Company

Co-operative Farm Lands Department

148 Fifth Street PORTLAND, OREGON



EASILY DETACHED
ALWAYS READY FOR ANY
WORK IN ANY CLIMATE

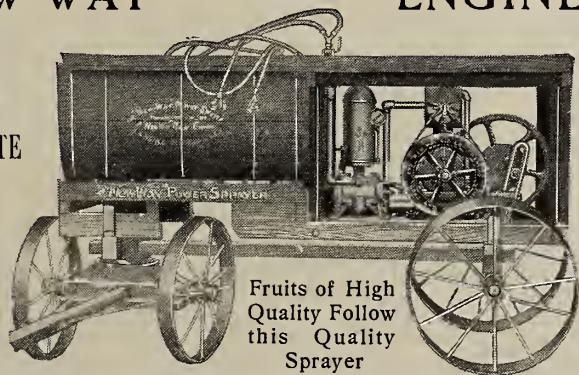


**THE "New-Way" POWER
SPRAYER**

IS EQUIPPED WITH THE FAMOUS

"NEW WAY" AIR COOLED ENGINE

GASOLINE
DISTILLATE
OR
ALCOHOL
FUEL



Fruits of High
Quality Follow
this Quality
Sprayer

Carries high pressure without the usual vibration and strain, and is the most practical, durable and economical machine ever built for spraying. Use your own running gear if you prefer. Write us today for Spray Catalogue No. S-8



**JOHN DEERE
PLOW CO.**
PORTLAND, OREGON



*One of the Most Attractive Beach
Resorts on the North Pacific Coast is*

NORTH BEACH

Near the mouth of the Columbia River, on the Washington Side, reached from the City of Portland on the splendid excursion

STEAMER T. J. POTTER

In about six hours. It is upward of twenty miles long, very broad and level and almost as compact as a composition pavement. It is dotted its entire length with towns, cottage settlements, tent cities, villas, fine hotels and all the amusement accessories of a popular summer beach resort. It's the place to go for rest, health and a good time. Thousands go there for their summer outing. *Try it*

**THE POTTER WILL
SAIL EVERY DAY
EXCEPT SUNDAYS**

DURING THE SUMMER SEASON

SEE PUBLISHED SCHEDULE

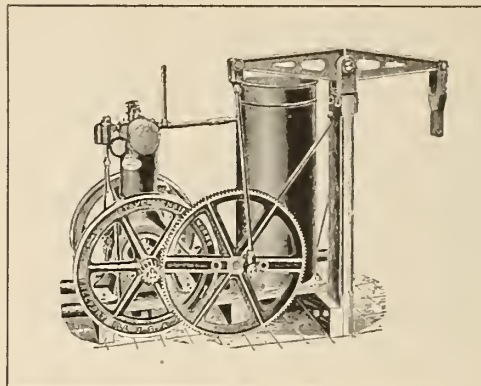
Fare from Portland, round trip . . . \$4.00
Saturday to Monday tickets. . . . 3.00

Purchase tickets and make reservations at city ticket office, Third and Washington Streets, Portland, or inquire of any O. R. & N. agent elsewhere for information

WM. McMURRAY

General Passenger Agent PORTLAND, OREGON

STOVER GASOLINE ENGINE



Mitchell's
LEWIS & STAYER CO.

PORTLAND, OREGON
SPOKANE BOISE
WASHINGTON IDAHO

For Irrigation, Spraying, Pumping

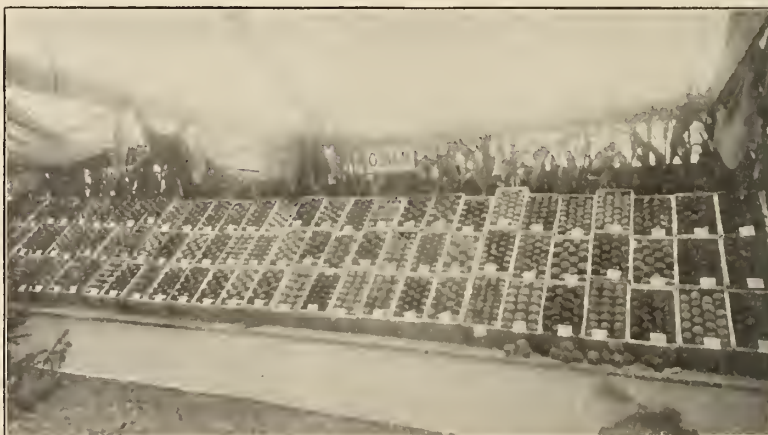
Water for domestic use, for sawing wood, grinding feed and all the varied uses. *It has no superiors and few equals.* We carry a large stock of extras and repair parts to take care of you in case of accident. *This feature is worth \$ to you*

CATALOGUE AND TESTIMONIAL
CIRCULARS FREE. WRITE TODAY

MOSIER, OREGON

A fine fruit growing district practically the same as Hood River, on the main line of the Oregon Railroad and Navigation Company route. Has all the soil and climatic advantages of the former with land at half the price. **BUY YOUR TICKET DIRECT TO MOSIER**

Mosier is not one of the
"just as good" places. It
is part of the Hood River
country. Everyone
knows what that means.
Famous for Newtowns
and Spitzenbergs



FOR FURTHER INFORMATION ADDRESS

MOSIER APPLES AT HOOD RIVER FRUIT FAIR

COMMERCIAL CLUB OF MOSIER VALLEY
Mosier, Oregon

DUFUR, OREGON

DON'T MAKE THE MISTAKE OTHERS HAVE MADE

And purchase fruit lands before you look up the *opportunities* offered at DUFUR where farms are being cut into ten and twenty acre tracts for fruit raising. Dufur is only fifteen miles south of The Dalles and twenty miles southwest of Hood River Valley. Hundreds of trees are being set out every year; don't miss the opportunity of getting in on the ground floor where we have the best land for the least money. No other country attempts to offer as good fruit lands, all cleared and ready to set out to trees, as is offered in DUFUR. *For further information write*

THE DUFUR COMMERCIAL CLUB

PROTECTION

Ever since the world began there has been need of protection of the weaker against the stronger—of justice against injustice. This principle is the foundation of all law. Without dwelling on intervening protective systems from Adam until now, we will say that the PRODUCE REPORTER COMPANY'S system is adapted to the present day requirements of live, aggressive, up-to-date shippers of fruits and produce in every part of the United States, particularly in Washington, Oregon, Utah, Idaho, Wyoming, Colorado and that territory known as the North-Western States. No shipper can afford to start his shipment "rolling" without being fully informed upon the antecedents and to date history of his customer, and even then, some difference may arise necessitating an adjustment or an inspection of the goods. It is impracticable for the shipper, in such cases, to immediately transport himself to destination, but by wiring to the Adjustment Department of our organization he can get a *personal representative to the point of trouble within a few hours*, and further, the record of all these transactions is preserved by the Reporting Department and is mentioned every Saturday in the Credit Sheet that goes to thousands of members scattered all over the United States. Thus there is a warning value to the membership at large, and an immediate aggressive, protective feature for the assistance of members in trouble. You should at least investigate. Send for a free booklet and tell us what you ship, when, how many cars and to what sections. It will cost you nothing to learn about this system and it may save you a car lot or more of valuable fruit or produce—enough to pay the cost of the annual dues for many years to come.

PRODUCE REPORTER CO.

34 SOUTH CLARK STREET

CHICAGO, ILLINOIS

STUDY THE SCIENCE OF INVESTMENT

Don't deal in futures; don't waste the best years of your life building up some unknown district for the man who follows you. Buy land of **known quality** and productiveness. Locate in a section the whole world knows all about—where prices are established—where the modern conveniences of the city are combined with the advantages of country life.

HOOD RIVER ORCHARDS

PAY FROM \$500 TO \$1500 NET PER ACRE

This is not what they **ought** to do or what we **expect** them to pay. It is what they have been doing in the past and are doing **now**.

Hood River has **NEVER** had a Crop Failure



SPRAYING A FULL GROWN ORCHARD IN HOOD RIVER VALLEY

Finest Irrigation System on Earth

Unlimited Water Supply

YOUR OPPORTUNITY

SAVE A LIFE TIME OF LABOR BY INVESTING IN HOOD RIVER

No killing frosts here. A bumper crop now on the trees. Surer than gold mines. Write for information about our fruit lands. Ask about our bearing orchards. Investigate our uncleared acreage. We sell tracts of every size and any state of cultivation at the right kind of prices

MacRae & Angus

Owners, Developers and Subdividers of Hood River Lands

432 Chamber of Commerce, Portland, Oregon

Hood River Offices: Angus Farm, Mt. Hood Hotel

We refer you to the three banks of Hood River and to President A. L. Mills of Portland First National and Cashier Schmeer of United States National Bank, Portland





80	Better
B46	
MAR 6 1914	MADE BY
NOV 18 1915	ENTERED
JUL 28 1937	

U. S. DEPARTMENT OF AGRICULTURE
LIBRARY

NOTICE TO BORROWERS

Please return all books promptly after finishing your use of them, in order that they may be available for reference by other persons who need to use them.

Please do not lend to others the books and periodicals charged to you. Return them to the Library to be charged to the persons who wish them.

The mutilation, destruction, or theft of Library property is punishable by law. (20 Stat. 171, June 15, 1878.)

Lib. 9



GPO

